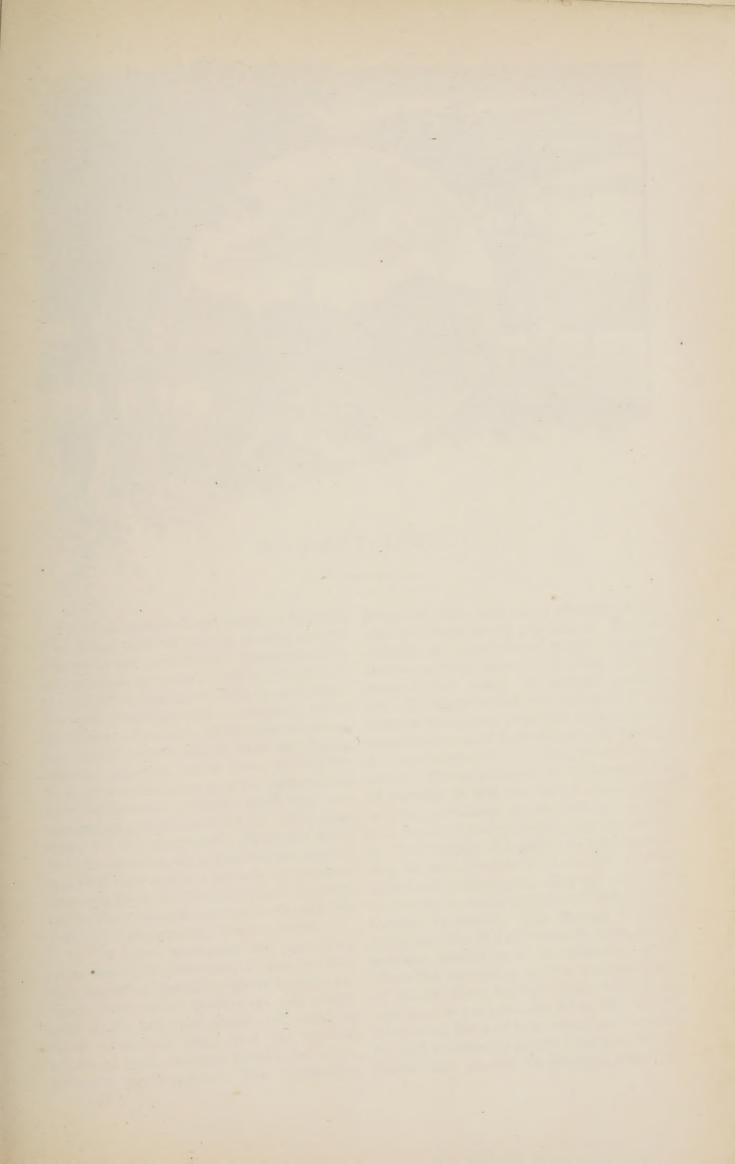
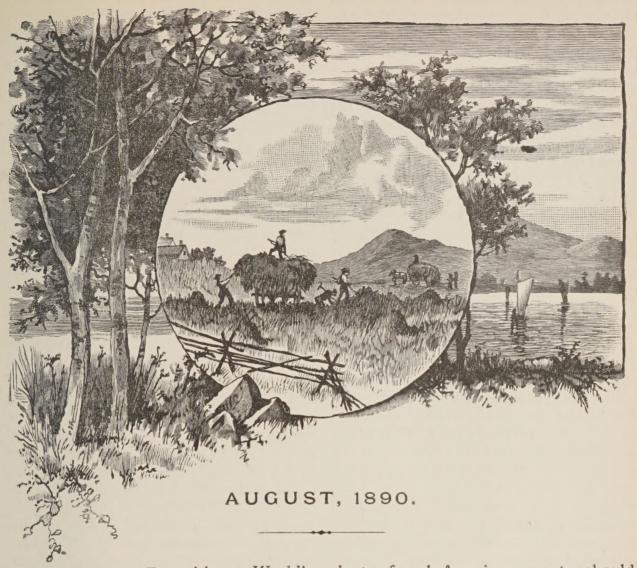
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THE COLUMBIAN Exposition, or World's Fair, to be held in Chicago, in 1893, should represent the condition of horticulture in this country in general and in detail, and the allied sciences of botany and entomology should present a complete set of specimens of at least all species of native plants and insects which have any horticultural interest. It is time to inquire how such collections can be formed and These problems are how exhibited. somewhat complicated by the facts that many of the specimens, especially fruits and flowers, are of a perishable nature, and that they are in a perfect or presentable condition at different times, according to their seasons of maturity and the portion of the country where raised.

To be more particular in specifying what would be desirable, it may be said that an effort should be made to have exhibits from every country on this continent of the principal plants cultivated for their economic uses, and the special plants of each country should be given greatest prominence. The decorative

plants of each American country should also be prominently presented. To provide for a collection of plants in these classes, a large amount of glass will be needed, and some very skillful gardeners. To what extent the nations of the Eastern Continent may also make similar contributions will depend upon the energy and zeal expended to bring about such a result. But in advance of all knowledge of the size of the exhibit of this kind, it will be necessary to assume some proportions and make some preparations for it. Something of a guide in this matter may be the horticultural exhibit of the late Paris Exposition, although our aim should be to make a more complete collection, if possible. The spring of 1891, or at least the fall of the same year, preparations should be so far advanced as to allow the reception of the contributions of plants from foreign countries. It is timely now to consider what the structures shall be, and how extensive to shelter and accommodate the vast number of plants that should be brought together

to illustrate the interests of horticulture. Of course, these structures should embody all the most improved methods of horticultural architecture, and may be supposed to be of many and various designs in external appearance and internal arrangement, according to the uses for which they are intended. These buildings and their furnishings will be of very great interest to a large number of persons, and will afford builders and manufacturers of heating apparatus a chance for a grand display. Undoubtedly horticultural builders will themselves supply some plant houses as specimens of their work, which will be available for plant exhibitions, but these will be but a small part of the glass that will be needed. A comprehensive and well defined system of plant structures should be decided upon and erected. The accompanying engraving shows a circular or rotund conservatory erected in the gardens of the Trocadero, at the Paris Exposition, by a horticultural builder. This house was thirty-four feet-ten mètres-in diameter, and surrounded by a frame work and balustrade eight feet wide, upon which were trained some light leaved climbing plants. A porch of iron frame, and glass roof, ornamented the entrance. Abundant use can be made of all structures which shall thus be gratuitously built for the great show at Chicago, but no dependence must be made on these, for the great mass of plant exhibits which should appear, special and ample structures for them must be devised and erected. The structures of glass needed for living plants will form but a small part of the room needed for the horticultural department or the joint division of horticulture and agriculture. But for all other parts of the horticultural division, except that of living plants, other than glass structures will be used.

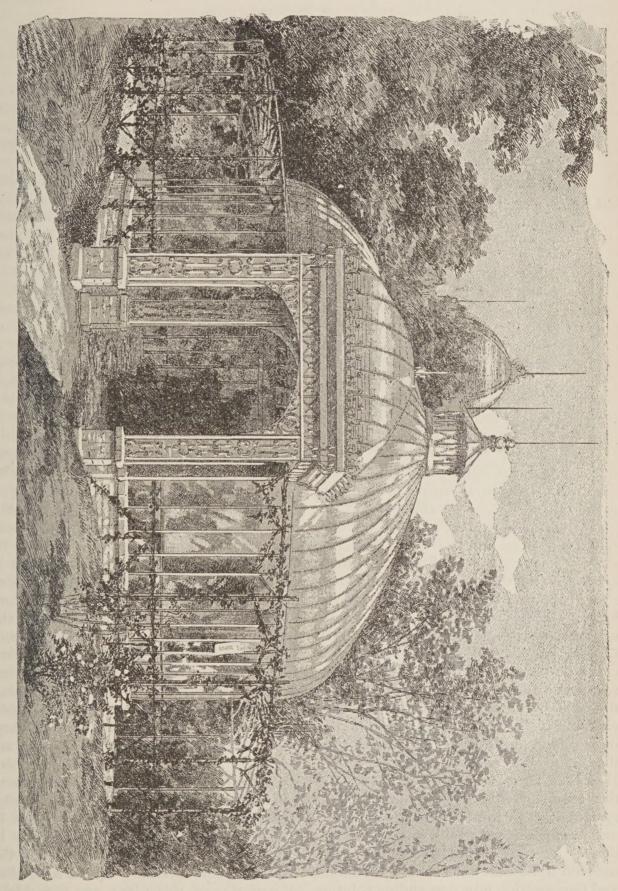
Of course, with suitable grounds and attention a great mass of vegetation will be presented planted out in the open.

This division should embrace a very complete herbarium of American plants, in which shall be gathered specimens of wood sections of all the trees of the continent and the islands of the western world; dried specimens of all the plants as far as practicable, and especially all grasses, and forage, food and economic plants. Scientific societies, and govern-

ments should be solicited to make this department as complete as possible. Horticulturists and botanists work hand in hand to make a comprehensive exhibit. The allied science of entomology must be expected in this connection to make a display of at least the useful and the injurious insects. The display of fruits and cut flowers will probably be held at various set times toaccommodate the season and the various localities. Through what agencies are all these contributions to be made, and what means will be necessary to secure them? Evidently, horticultural and fruitgrowers' societies in all parts of the country will be expected to make preparations to supply the products of all kinds of gardening skill, and, besides, botanical, entomological and microscopical societies must be invited to supply from their collections. We shall naturally look to the Agricultural Department at Washington to supply in large quantities both insect and herbarium specimens. To arrange the details of the horticultural exhibits, as here roughly indicated, will require the best talent educated in this special line, and probably some persons connected with the Agricultural Department and the Smithsonian Institute will be particularly available for advice and active work in this connection.

At the late Paris Exposition, agriculture, vine culture, and fish culture formed a department, and horticulture was a department of itself. This purely artificial grouping of industries, such as fish rearing with vine culture is undesirable, and no doubt the magnitude and the variety of the display of horticultural products representing the western hemisphere will be such that little opportunity will be afforded to connect with it the exhibit of any other industry.

In order to effect a display of agricultural and horticultural produce and the objects of its closely related sciences, botany and entomology, a vast amount of preliminary clerical work must be done by the constituted authorities of the Exposition. This statement applies to every department of the fair, but with double force to the department now being considered. For instance, manufacturers of all kinds are directly interested in the reputation they may make by a successful show of their goods, while no single horticulturist can expect to gain much fame, however good the produce he may supply. Greater effort will, therefore, be required to secure exhibits of this kind. The interests of communities of fruit-growers may be advanced, and therefore their aid must be sought



through their organized local societies. Southern California has already signified its desire for room for a large display. Persistent effort on the part of those having the matter in charge will be necessary to call out this department to a satisfactory completeness. The Commisioners of the Fair have already been appointed, and it is to be hoped that at the earliest opportunity the rules and regulations of the exhi-

CONSERVATORY IN ORNAMENTAL STYLE, AT THE PARIS EXPOSITION.

iings of all horticultural societies com- horticulture in the western world.

bition will be made known, for there is no mittees should be appointed to aid in all time to spare for gardeners to make prep- possible ways to make the occasion of the arations. At the fall and winter meet- Columbian Exposition a grand triump of

# POPULAR ORCHID GROWING.

The variety of plants cultivated for their bloom is so great that every opportunity that can be desired is offered for the exercise of skill in plant culture. When one has become really interested in this art and obtained skill in it he is at no loss for subjects upon which to exercise, nor is there any difficulty in procuring them. On the other hand, the numerous tyros in the art who are making their first attempts are ignorant where to begin, and are quite as likely to commence with a class of plants that present great difficulties as with one of simple culture. There are some persons who never can or never will learn how to raise any plants-they cannot even succeed with roses or grape-vines in the open garden. As a rule the plants requiring the simplest culture and least care are those which afford the greatest pleasure to the greatest number, and it is such plants that we have always desired to keep most prominent, and to direct to them the attention of the community generally. The annuals that can be easily raised from seed, the perennials that will last for years, and the flowering shrubs that require but little care, these are the plants that must always make up the great number cultivated by flower lovers. Occasionally we find persons whose zeal in plant growing refuses to be satisfied except with rare plants of difficult cultivation, and often they produce surprising and gratifying results. When the orchids came under cultivation little was known of their requirements and only skilled gardeners attempted to raise them, and even now they are rare plants. However, as more has been learned of the requirements of these plants their system of cultivation has been symplified, and thus more have undertaken to raise them. Many amateurs have already commenced to add them to their collections, and the question now demanding solution is what varieties are adapted to the ordinary greenhouse and to the window garden of the careful cultivator. think it will not be long before we shall

hear of the successful cultivation of some kinds of orchids in windows. satisfy the desire for information among amateurs in regard to the more easily raised species and varieties of these plants, and their requirements, we shall from time to time give suitable instructions on these subjects. In this number we present our readers with a plate of a beautiful orchid, and one that demands the simplest culture. Lycaste Skinneri is a native of Guatamala, found in what is called the temperate portion. suited with an ordinary greenhouse temperature, and a turf or peaty soil. Through the first spring months, or March and April, it can have a season of rest, and at that time requires no water. In May it commences to grow and then should be supplied with water as needed. In June it can be placed out in the open air in the shade, as is the custom now with most gardeners in the management of their plants in the summer season. The supply of water should increase and be given abundantly in July and August, while the plant is making its most growth. In September the plant can be housed, and at this time its growth is about completed. Soon after it begins to show its flower-buds. A temperature of fifty degrees is sufficient, and the plants are kept in better health and produce finer flowers with a moderate temperature than one higher. The flowering season lasts through October, November and December, and may be prolonged through January and well into February. Its blooming season is when flowers are the most needed, and the plant is consequently a beautiful winter ornament to the greenhouse and conservatory. The plant will keep well in the house in a cool room, and from its adaptability in this respect it has been called "the drawing-room orchid." Quite a number of varieties of this plant are found in a natural state, and are now in cultivation, the difference being mainly in the depth of coloring. One of the Lycaste Skinneri, var. alba, is white.

# SOME PACIFIC COAST HORTICULTURAL WRITERS.

The late Dr. C. C. PARRY, that most charming of men and most ardent of botanists, once contributed a valuable paper to The Overland Monthly, upon the "Early Botanical Explorers" of the Pacific coast, from Eschscholtz to Coul-TER and Douglass. A volume might easily be written about the men and women who have been closely identified with the work in this field of science. Sir Joseph Hooker and Dr. Asa Gray were in the Sierras together; Professor SERENO WATSON, Dr. C. S. SARGENT, Dr. PARRY, Dr. ENGELMANN and Mr. VASEY were all in California the same year, 1880, I think.

What I wish to do in the present paper, however, is to call attention to some of the excellent out-door work done a decade ago by local writers, whose names are less familiar to the general reader than the names of such daring mountaineers as JOHN MUIR, such careful botanists as EDWARD L. GREENE, of the State University, and such ardent collectors as Mr. and Mrs. LEMMON. While I was editor of a horticultural journal, from 1878 to 1880, my relations were very pleasant with many such writers in all parts of the Pacific coast, and even in South America, Japan, Australia and New Zea-

land.

During the years between 1875 and 1881, a large number of valuable botanical and horticultural articles of general interest were printed in this publication, many of them distinctively liter-

ary in character.

A very careful writer, at one time a prominent bulb collector, was J. B. HICK-MAN, a school teacher of Carneros district, Monterey county, a little spot in the sand hills, between Pajaro valley and the Salinas. One of his best papers was upon two of the finest Californian shrubs, the Rhododendron occidentalis and the Pickeringia montana. Of the former he writes that, in his district, it is found only on the tops of ridges, not by streams, as in Northern California. HICKMAN, at that time, had a piece of land which he gradually cleared and cultivated. taught the district school on week days and spent his Saturdays in the hills, making most of his botanical tours over a region containing about a hundred square miles. He was, at that time, the only writer "from the sand hills."

Another country school teacher who deserves remembrance in this connection was B. F. Roberts, of Shasta. When I first knew him, he was teaching in a log cabin on Cow Creek. He was a hard student of GRAY, DARWIN and HERBERT SPENCER, in fact, his oldest boy was named after the latter. He botanized a good deal in vacations, and made many acute and thoughtful observations in natural history. His contributions to the horticultural papers of the time were mostly bits of very practical studies from the garden of a "school teacher who taught one summer in the Sierra, and the next in the Coast Range, and who grew most of his plants in boxes and moved them on a lumber wagon."

W. C. L. DREW, of El Dorado county, whose name used to appear in many publications of ten years ago, was a very bright and modest young man, who lived in an old mining town where the soil was rich, the climate warm, and water from the old flume was abundant. The result was a very brilliant garden of a larger variety of flowers than one often sees. When I visited DREW's garden it was a surprise, so large had been his collection of native bulbs and so numerous his exchanges with other collectors. His articles were chiefly in the floricultural department, and were very bright reading.

Among the younger writers of the period none was more pleasing than Miss S. E. Anderson, the daughter of Dr. ANDERSON, the veteran botanist of Santa Cruz. Her notes from field and garden were always looked for with eagerness. She says, somewhere, after describing a spring day in her Santa Cruz garden: "It may be a prejudice, but it seems to me that a woman's conservatism generally has a better effect in a garden, and promotes its beauty more than all the energetic reconstructive ardor of the average man." She proceeds to illustrate her ideas of a "judicious letting alone system" with an energy which would delight the heart of the author of "The Wild Garden."

Two ladies, MARY E. PULSIVER AMES. of Auburn, and Mrs. R. M. Austin, of Big Meadows, Plumas, both well known among botanists, used to contribute far more to horticultural publications than they do now. The notes on the flora of Plumas county, "which the first named lady wrote for the *California Horticulturist*" of August, 1880, were widely copied, and so were Mrs. Austin's very graphic account of her ascent of Mount Lassen, the year before. Mrs. Austin's observations on the Darlingtonia Californica first made her known as an observer of unusual carefulness. I quote from her paper on Mount Lassen, a paragraph describing the Peak itself, in July:

"We begin to ascend. I am in a new world. Not a single plant that I have ever looked upon before. The rocks are free from snow, and out of their crevices are peering such rare treasures for me. Here is a beautiful Pentstemon, not over two inches high, with large, blue flowers. This strange little Crucifer, Mr. WATSON writes me, is Cardamine bellidifolia. A little higher up is Anemone Drummondii, 'new to California,' but found some fifty years ago by Drummond in the Cascade range of mountains. Here is the crimson snow, of which I have so often read; west of me, at the base of the rock on which I recline, nestles a little lake, whose water is as blue as indigo, and in the distance are other and larger lakes. The world below is enveloped in a thin haze or smoke."

Many charming descriptions of the Northern Sierra plants appear in Mrs. Ames' "Notes." "Cornus Nuttallii," she says, "commonly known as Dogwood, often attains a height of sixty feet. and is also very abundant in the cañons and along the courses of mountain springs. The branches are numerous and spreading. Its true flowers are inconspicuous, greenish-yellow, in dense heads, encircled by a white corolla-like involucre, which, added to the charm of its rich foliage, gives the tree a very marked appearance even at a long distance. The meadows are embellished with the hues of many attractive and beautiful blossoms, consisting of the pentstemon, potentilla, mentzelia, mimulus, Aquilegia occidentalis, and the deep blue, plume-like racemes of the Camassia esculenta, of LINDLEY, while the air is redolent with the perfume of the innumerable snowy spikes of Polygonum bistorta, with senecio, three species of lupinus and two of calochortus. In shady recesses, beneath the protecting willows, the charming red and blue bells of Mertensia Sibirica, and the fragile, delicate loveliness of Cypripedium passerinum lends enchantment to the scene."

One of the best papers of the time was an article by Volney Rattan, then teacher of botany in the girl's high school of San Francisco, about his journey through Humboldt and Siskiyou, and over the trail from Happy Camp to Waldo, in Oregon. Along the Crescent City trail "Vancouveria has golden yellow flowers, and Dicentra formosa masquerades in cream white. On the banks of the Smith River, six miles from Crescent City, is the western outpost of Darlingtonia, and a few miles below is the northern limit, excepting one forest in Oregon, of the superb Redwood, the finest of California trees."

A. L. SILVER, of Ranch, Utah, used to write, for the most part, about cacti, and it is seldom that one finds, in these days, better pictures from that region. Here is a bit from one of his journeys in the Sink Valley and Kunab Creek district of Southern Utah:

"As we look ahead, the way seems to be blocked at a distance of a few miles by impassable mountains of sandstone on which it is barely possible for even a cactus to sustain itself. We hurry on, down, down, until we come to the gate, then the vegetation begins to change, and we find Echinocactus Phoeniceus by the dozen ranged a few feet about our heads as we ride along. They are growing on pudding stone and cements. that may have been mixed up millions of years ago. On our left we see a ledge overhanging a small sandhill, which from the verdant green it shows it must be a moist spot, an oasis in the desert of dry sand and sandstone cliffs. We go to it, and find an aquilegia which, in July and August, produces the most lovely pink flowers.'

Southern California then, as now, contained a great many horticultural writers, some of whom still continue contributions to gardening and botanical journals. W. F. Parish and Samuel B. Parish, of San Bernardino, were two of the most interesting with their notes of tours "into the desert," their chapters on floriculture, and their amusing reflections about the lazy people who "borrow all

one's best plants." Here is one of W. F. Parish's cactus stories:

"A San Bernardino young man sent to a friend in the east some of the cactuses, natives of the hot, dry soil of a California desert. Some months afterwards he received, from his friend, a letter, saving: 'I have taken the greatest care of that thorny thing you sent, and kept it constantly watered, but it has died.' Contempt was visible on that desert man's countenance when he read these words, and he wrote: 'Put the cactus in a pot, put the pot in a stove oven, and shut the door; never let the fire go out, day or night, and you will keep up pretty near the same temperature as we have here, where it grows."

Santa Barbara was the center of horticulture then, as now, and Mr. FORD, Dr. DIMMICK and Mrs. WINTON were frequent writers. One of Dr. DIMMICK's papers described his open air culture of Tecoma jasminoides, Bignonia venusta, Stephanotis floribunda, Mandevilla suaveolens, Hoya carnosa and the best of the climbing cactuses. One of Mrs. N. W. WINTON'S articles contained the following "rose story:"

"Two or three weeks after a summer pruning, in July, my husband kindly offered to pick off the old roses for me, and after attacking a Celine Forester for a time, suddenly remembered an important engagement at the office, remarking that he had taken off two hundred and seventeen. This plant had but three stalks, two and one-half feet high, and was only fifteen months old."

Mrs. James C. Carr, of Pasadena, who has long been one of the best writers in the out-door field, contributed a paper upon wild-gardens, in the course of which, she said:

"Out of all the unclaimed riches of wild nature we have apparently gathered only a few fragments. We know only a tithe of the varied uses and adaptations of the vegetable world to the comfort and happiness of man. A few of the earlier pioneers of California have devoted a part of their wealth to the encouragement of experiments in new cultures, and have not forgotten the wild plants. At General Bidwell's and Colonel Hollister's one may find hints of wild gardens in canopies of wild grape and thickets of ceanothus trees, but for the most part

our planting is far from nature, as meaningless, as empty of suggestion as a vitiated taste can make it."

Perhaps the most unique of the occasional writers on horticulture of the period was Dr. J. W. Gally, of Watsonville, an old Nevada silver miner, author of several very remarkable pioneer books and stories. He bought an apple orchard by the Pajaro river, and amused himself with occasional contributions to the newspapers and magazines. One of his meditations ran as follows:

"'Geard-lant' is a combination of Saxon and Celtic words. Geard is Saxon for a measure. Lant is Celtic for land. Hence we have a compound word which means a measure of land, or, as we more beautifully say in America, also quoting from Shakespeare, 'a patch of ground.' Hence the western American calls his garden, or geard-lant, his 'truck patch.' Why it should be truck is not clear. Truck may, however, in some haziness of complexity, be derived from the French troc, small trade, or peddling. Hence the garden of the American farmer becomes his peddling ground—that is to say, his 'truck patch.' But the word geard, in moving down the ages, among the other words in the lingual glacier which has dumped out to us the English language, has been worn into the word yard. Hence, a front yard, a door yard, a back yard, etc. The word yard is a portion of the name orchard—that is to say, 'wort-yard,' or 'ort-yard,' meaning thereby a patch of herbs.

"In the course of time our ancestors began to brush up a little, and, little by little, to plant the seeds of trees in the geard, until, as the trees grew, the geard or geardon, or ort-yard, yielded apples, pears, cherries, etc. Finding that he had a profitable patch, called an ort-yard, our ancestor, with true English instinct, proceeded to add the letter h, and called it 'hort-yard;' then, by usage, he shortened the word to 'horchard,' but then, again, with true British sagacity he no sooner found the letter h properly belonging to the name than he instantly dropped it, like a hot potato, and called the patch an orchard"

With this amusing and picturesque fragment I must bring to a close these reminiscences of some of the horticultural writers I have known, the greater

ing the same period contributed equally publications.

number of whom appear to have ceased excellent work to the Rural Press, the to work in this field. Many others dur- Horticulturist, and other Pacific coast CHAS. HOWARD SHINN.

# GIVE THE BOYS AND GIRLS A CHANCE.

"As the twig is bent the tree 's inclined," is a trite saying, the truth of which we sometimes forget. Nearly three thousand years ago the wisest of men declared, "Train up a child in the way he should go, and when he is old he will not depart from it." Most persons are born with a natural love for flowers. I never yet saw a toddler whose eyes did not light up with pleasure at the sight of bright blossoms, and whose fingers did not itch to hold in their grasp "the pitty flowers," and small boys show fully as much liking therefor as their sisters. It is considered the proper thing for our girls to wear flowers, to love them and care for them, and so encouraged and trained, the majority of our girls grow up into flower-loving women. On the contrary, in many homes, the boys are made to feel that the love of flowers is "girlish," and trust our modern boy for wanting at all times to be "mannish!" So our boys smother their natural liking with a forced indifference, which later, alas, becomes a second nature. Ninetynine one-hundredths of the men and women who manifest this indifference never had their tastes cultivated in this direction while young. It is freely admitted that there is a refining, elevating influence about flowers; why, then, should not parents feel it a duty to encourage the love of the beautiful in bud and bloom?

Often I have heard women lament their bare yards and windows, but they have too many children to have time to spare on flowers. Involuntarily the thought arises, why spend time, except a little now and then in planning and directing the children's efforts. Any able bodied child of five, if once shown how, can plant sweet peas or morning glorys that, with their many bright blooms, will do much to relieve the bare look seen in so many yards, and the amount of pleasure a child will take with these simple treasures is simply incalculable. If some one will once spade up the ground for them, children a few years older will take great delight in making the rows and sowing

the seeds of easy growing annuals. Just a little wise oversight will cause all to be well done, and yet give the little folks the pleasure of feeling that they have done all the work themselves. Get the children little light hoes that will not break their backs to lift, and generally there will be no trouble to get them to keep down the weeds and stir the soil. Let them call the beds their own, that they may feel free to pick the flowers of their own raising, and give to their little friends and to their teachers. The love of possession is felt by all children; the country child speaks of "my colt," or "my calf," while the town child speaks of "my bird," and "my cat." It is cruel to ask children to hoe and dig and yet never allow them to pick a bud or flower without permission. Keep them from the more formal beds, if need be, but do give the children a bed to be their very own, and see how little it takes to make them. happy. Judgment should be used in selecting flowers to fill such a bed. Remember that little folks are impatient. and do not choose perennials or annuals that will not bloom before autumn. Remember, also, that they soon tire of flowerless plants, and do not select short blooming sorts, or such kinds as must be kept free from seeds to keep in bloom. Among the best sorts for children are balsams, nasturtiums, portulaca, phlox, pinks and sweet peas. These good old fashioned flowers grow easily, last long in bloom, and are among our brightest and best flowers.

As a rule, these bright, easily grown flowers please the children well; sometimes children whose parents pay much attention to flowers, and have many rare sorts, with the keen sense of justice all children possess, grow dissatisfied with annuals alone and long for a share of the rarer flowers that their elders have. "I don't like my bed at all," confidentially said a little girl to me once. "It is just full of petunias and larkspurs that no one else will have. Mamma has beds and beds full of geraniums and gladiolus. lilies and roses, and I haven't one. I just hate my old bed!" Don't be afraid to give the children a few gladiolus or geraniums. They often take more pains than grown-ups with some plant they think is extra choice, as I have reason to know. One child, now nine years old, has for two years raised the best dahlias and gladiolus grown on the place. little hoe is forever stirring the soil around them, and she is always ready to supply needed water or mulch. Divide with the children—they ought to have a share of the good things, I am sure.

In towns, especially, it is well worth the mother's while to encourage a taste for gardening. Children that have some happy employment are not idling upon the streets and picking up questionable associates. Few realize the power for good a love of flowers may prove. I have long felt an interest in a boy that years ago was in our sunday school.

Years ago, with his mother's last breath, every home influence for good died out of the child's life. I rarely saw him, but supposed he could not help but grow up a coarse, bad man. Last year, the boy, now a half-grown lad, came to our house and in a frank, manly way asked for some flowers. "I want them for mother," he said, "mother always thought so much of flowers, and I want some to put on her grave." Quickly I gave them to him, thinking the while that the boy who so affectionately remembered his mother, more than five years dead, had the making of a true man in him. That boy never saw a beautiful flower but that there came to him thoughts of his mother and of her teachings. Can we leave to our children a better legacy than a love of the good, the true and the beautiful? While we teach them the good and the true, let us not neglect the beautiful also.

LORA S. LA MANCE.

## MY WAY WITH GERANIUMS.

The geranium has been styled, and very aptly so, "the plant of the people," being hardy, thrifty and willing to grow and bloom under very adverse circumstances, though it repays an hundred fold every care and attention bestowed

upon it.

We will start with the supposition that you have a few geraniums which you tried all winter to coax into bloom, but failing in that, in sheer desperation, you sent them into the flower garden, where, without care or attention, they are growing and blossoming finely. Any time during May, June, July and August, but the earlier the better, take slips or cuttings from the geraniums in the garden, place them in dishes of wet sand and give plenty of sunshine, and keep wet, or, if you prefer, put them near the parent plant, where they will be partially shaded, firm the earth about them and water occasionally; in either case you will, in about two weeks, have plenty of wellrooted little plants.

Nearly every one will tell you to put these plants in small pots and transplant. I do not claim that this is not the better way, but it is not my way. I plant direct in the pots I expect my plants to remain and bloom in. I use pots that hold about

one quart, or more commonly old quart fruit cans painted a very dark red, brown drab or black. I make no holes for drainage, but fill the can nearly onefourth full of little stones, broken crockery, etc. On this drainage material I put an inch deep layer of hen manure. filling the can with good rich soil composed chiefly of leaf-mold, as I live where it is very easily obtained.

I put one plant to each can, and set in a sunny situation, keep them wet enough to keep them growing, and watch closely to keep all buds picked off. In September or October I pinch back the shoots to induce new growth, as growth means bloom with geraniums.

As the weather grows cool I bring the plants in nights, setting them out during the day, thus gradually accustoming them to indoor living. When it is too cool to put them out-doors during the middle of the day, give them a warm, sunny window and do not turn the plants, but keep the same side toward the sun all the time. Water thoroughly when you do water, and then leave them alone till the soil is quite dry. Don't keep dosing them every day, or perhaps two or three times a day with little driblets of water. But don't go to the other extreme of letting them get dry enough to wilt. An occasional watering with liquid manure will "rush" things a little. The best I ever used was made by putting about a quart of dry hen manure in an old pail, and pouring boiling water on it, cover closely and leave till cold, when it may be bottled and kept where it will not freeze, using enough once in two weeks to color the water used to about the shade of weak tea. If you cannot prepare the liquid manure use some of the prepared plant foods instead. In potting geraniums, if you cannot get leaf-mold, use a little sand with the soil.

Geraniums grown in this way ought to blossom nearly all winter. In the fall, and before severe frosts, take up your old geraniums, set closely in boxes several plants to each box. Fill the boxes nearly full of good soil, press firmly around the roots, and give a good watering. Put them in the cellar, and if they get dry during the winter, water again. Some people meet with good success by hanging their geraniums—that is, they pull them up, letting all the earth that will adhere to their roots, tie them in clusters of five or six, break, partly off, several branches from each plant, and hang in the upper part of the cellar, roots up, plants down.

In the spring, as soon as it is warm enough in some shed or chamber for the geraniums, bring them from the cellar, water those in boxes and set in the sunny windows. Don't lose faith and throw away your plants because you can see no signs of life, for they will sometimes sprout from the old roots when the tops are entirely dead. The plants that have been hung must be set in boxes of soil and treated like those kept in soil all

winter. By the time it is warm enough to transplant to the garden these old plants will be well started and ready to bloom. Before transplanting cut back all dead wood. The younger plants that have done duty in the window garden during the winter will give lots of flowers in the garden through the summer, but new plants must be started for the next winter's blooming. For though a geranium will bloom one winter in the house and the following summer in the ground, it will very seldom do well if that order of things is reversed, i. e., plants that have bloomed all summer in the garden will not blossom all the following winter, or a part of it, in the house. After a geranium which is started in early summer blooms one winter in the house, and the next summer in the garden, spends the following winter in the cellar, and again does duty in the garden, it is well, except in very rare cases, to consider its period of usefulness past, and not try to winter it again, but let some of the younger plants take its place.

In speaking of the watering of the geranium, I did not think to say I use warm, nearly hot, water with which to water them during the cold weather, and also keep water on the stove very nearly all the time. I keep mostly single and semi-double geraniums, both because they bloom more freely and because I like them better than most of the double varieties. Keep all dead and decaying leaves picked off, and remove all blossoms as soon as they fade, both in-door and out, unless you wish to grow a few seeds. But don't expect the same plant to produce an abundant bloom and also ripen seeds, for it cannot do so.

DOROTHY LINCOLN.

### SEEDS FOR SUMMER GARDENS.

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Many of our summer bedding plants are earlier and stronger when the seeds are sown in autumn, or, better still, are allowed to sow themselves. The only trouble with self-sown seed, or volunteers, is that some kinds are apt to run out, and in such cases it is true economy to buy fresh seed of the florist every year. I have found that pansy plants more than a year old seldom produce fine flowers, and in order to have them

rich and royal I must trust neither to the plant's best efforts at seed saving, nor to my own, but to the florists, and it is better to pay two prices for good seed from a reliable house than to pay half price from a poor one.

Scarlet salvias are in their glory in September. It takes the little hard, black seeds so long to germinate that they seldom get fairly to blooming until the warm weather in August. I have seen

salvia plants stand perfectly sullen and still, never growing an inch through the best of warm, showery, growing weather, then, when the fierce suns of July and August came on, seemingly make a leap from inches to feet in height. But its blooms come in good time to make your garden a blaze of scarlet glory, when the cold nights and nipping frosts are telling upon other plants, and the beds begin to look bleak. I do not see why a plant with so many good points as the salvia should not be more popular, for in flower, leaf and habit there are few bedding plants which equal it. For corsage bouquets it is glowing in color and graceful in form, and nothing is prettier than a spray of the scarlet variety woven with a delicate fern or two into a coronet of black hair. If strong plants of it are taken up in autumn and potted, they will light up the window garden for weeks most brilliantly; but if you want them for summer blooming it is best to sow the seed now, and look out for the tiny plants next April. This will give you an opportunity for earlier flowers.

If you have a bed of verbenas growing, cover them with brush and let them find for themselves, or get the seed and sow them now, in order to have them early. You can hardly have a more obedient border plant than the verbena, but the scarlet varieties are apt to disappear unless you get fresh seed every year, and leave your border a mass of many shaded blues and pinks, an abundance of lovely white clusters, but never a fire coal. I have seen verbenas grown in pots and boxes, but they were very cramped-looking specimens, leggy and sprawly, with but few blossoms and poor coloring. I always felt like pulling them up and putting them where they could get plenty of sun and room, and scuttle along in the warm sand as only a verbena knows how to do.

No one with the tinniest scrap of a lawn should be without at least one bed of Phlox Drummondii. It is to the gardener what a housekeeper's light bread is to her—always on hand and always to be relied upon. My beds, this year, were masses of white, pink and scarlet, and I think their trusses are quite as handsome as a geranium's, and not nearly as stiff.

I shall simply dig up my beds after frost,

give them a coating of leaf-mold, and the protection of a little brush, and next April expect to find fine, large plants from the self-sown seed. If I were sowing the seed for the first time, I should sow it the last of October, here, in North Carolina, late enough to keep it from germinating this fall, cover them snugly for the winter, and expect great things of them next summer.

Double daisy and sweet alyssum are other seeds best sown in autumn, that well repay one for the little trouble and care they require. What could be daintier than the cunning white or pink daisy balls, and the delicate, honey - sweet alyssum sprays? When you find these two in a woman's garden, together with mignonette and pansies, or violets, you may be sure that she is both refined in taste and artistic in appreciation.

This summer, I had sent me a packet of calliopsis. I remember seeing them when a child, but when they bloomed the colors were new to me. One variety was a curious dark, mahogany-red, and another a clear lemon-yellow with brown eye.

The flowers are borne on graceful, swaying stems, and the colors massed together were very striking and beautitiful. I sow all my annuals that I think will bear it in the autumn, and I mean to try the calliopsis in the same way.

Lavender will sow its own seed and come up finely, and is indispensable on account of its fragrance. I have had two crops from my lavender bed, this year, and might have had a third if I had only cut the first soon enough.

I do not like ribbon-beds, they are so stiff and unnatural, and I am heartily glad they are going out of favor; but I do like massing colors, and large foliage plants in the center of such beds add much to their appearance. A wooden cross covered with cypress vine, in the center of a round verbena, phlox or nasturtium bed is quite pretty from any point of inspection.

The black and purple leaved perillas look odd and pretty in centers of circles of bright color, and no matter where you plant or throw a perilla, it will grow.

I have purposely left out geraniums and coleus as being amply provided for by florists in their catalogues.

KATE ELLICOTT.

## A BEGINNER IN FRUIT-GROWING.

NUMBER 9.

The neglect of summer cultivation of berry plantations is the besetting sin of beginners. There is so much to do, and often so many irons in the fire that the work is put off from day to day until it gets to be too late to do any good, and the work is either done out of season or not done at all. I think it is safe to say that nine-tenths of the raspberry and blackberry patches, one year old and over, within a radius of twenty miles from where I live are at present in a condition of neglect and slovenliness at this date, July 1st.

This is largely the result of a very peculiar season. The fall of 1889 was wet and the winter warm, and grass and perennial weeds were in full vigor and growth when the spring opened. Then, after a few days, when it was possible to cultivate, it commenced to rain and continued wet until strawberries were in bloom and all kinds of work rolled up in a mass together, until one hardly knew which to go at first. Warm weather came on suddenly, and vegetation responded with an alacrity I have never seen equalled, and before any one was ready the strawberries were ripe and other work must stop that men and teams could be used to harvest the crop.

At the summer meeting of the Ohio Horticultural Society, held June 11th, and attended by the leading berry growers of the State, I found many who had not completed their spring strawberry setting, and several usually thorough and prompt cultivators who had been unable to go into their raspberries at all, and many were the questions asked as to what could be done under the circumstances. My own reply to these inquiries was that I would not cultivate old raspberry plantations at that late date, when the fruit was partially grown, but that it would do to work in blackberries that had been cultivated the previous year, the roots in such cases being lower down and not as likely to be severed in cultivation. In young plantations of raspberries, those planted last year, which are fruiting very lightly, I shall cultivate at once, getting along as fast as possible. Where raspberries were plowed in the spring and then neglected until July shallow cultivating can be done at any time

without much detriment to the growing fruit; my method being to gradually subdue the weeds by the use of the Planet Ir., cultivator, without using the plow at all in midsummer. To a novice the rank weeds, tufts of grass and blackberry and raspberry suckers present a discouraging aspect, and it seems as if nothing but a two-horse plow would subdue the growth; but a very little experience will show that the July worker in subduing weeds has a powerful assistant that he lacks in April, and that is the sun. The weed that is "skotched, not killed," in April often is but transplanted and grows apace, while in July it wilts, and if molested again in a few days surrenders unconditionally.

The first time through the rank growth with the cultivator makes but little show. but four times along in each seven foot space makes a decided change which in three or four days under the hot sun results in the death of full half the mass of stuff that grew so blithely as long as unmolested, and renders it possible to again cultivate with considerable satisfaction. A week after the second cultivation the beginner will be surprised at the effectiveness of his work and be prepared to be a sun-worshipper for the rest of his life. It will then be possible to pretty much annihilate what is left of the weeds and have the spaces clean and mellow.

While this protracted fight is in progress the berry grower should not feel that it is labor thrown away. Far from it. The summer cultivation should progress just the same if there were no weeds to kill. It is in July and August that the berry plants are storing up food and vigor to carry them through the winter and enable them to return an abundant harvest the succeeding summer. Farmers are especially prone to neglect berry plantations the second year, and thus lose a large part of the profit on their outlay for plants.

August is the month to increase strawberries and tip-rooting raspberries, and those who grow plants to use or sell should push their plantations by cultivation and give more or less attention to layering, if they would attain the best results. For home use and summer planting the sinking of small flower pots into which the strawberry stolons are allowed pot to indicate its position, as many get to root is a desirable plan. A stick five lost in the foliage without this precaution. or six inches long should be stuck in each

L. B. PIERCE.

### DIANTHUS.

A little plant with a very long name, and a brilliant and beautiful blossom is Dianthus imperialis flore-pleno atrosanguineus. I have a handsome bed of this plant now before me, edged with Salleroi geraniums, and the double, dark red, fringed flowers show to fine advantage. Plants not more than eight inches high are a mass of glowing color, and despite the burning sun and pitiless drought, bloom away constantly and faithfully.

D. Heddewigii and laciniatus, Chinensis and striatus, I have tried in various soils and situations, but none of them compare in beauty or freedom of bloom with this one-atrosanguineus. D. Imperialis flore-pleno, blooming in the next bed, is also very beautiful, fragrant and pure white. I suppose these two varieties do their very best in order to support the dignity of their long names.

I sow my seed in early spring, shading and sprinkling the bed until the plantlets are all up, then thin out, and transplant

them when large enough. They will give blooms the first season, but if these are pinched out to only a moderate number, the plants will become strong and sturdy to withstand winter's cold, and early next spring will flower beaut-

The Dianthus is often cultivated as a house plants, and adapts itself to this mode of culture very readily; but care must be given to keep the plants cool enough, and to give a good strong soil.

First cousin to the Dianthus is the sweet william, with colors almost equally brilliant and varied, and trusses of enormous size. Some double varieties are now grown in many gardens, but the single ones are handsomer and freer of bloom.

I have found it better to grow fresh plants from seed every year, and Dunetti, a single, dark red variety, which blooms very early, has rivaled Dianthus atrosanguineus this spring and summer.

L. GREENLEE.

# NASTURTIUMS.

Golden nasturtiums intertwine My window sash with graceful vine: The saucy blossoms, one by one, In mock defiance to the sun, Rear on high their sunny faces, Then bend low with countless graces; Has there been by magic wrought, Deep within the blossoms, thought Dressed in colors gay and fine? Passing fancy 'tis of mine, That when evening shadows fall

From portico to garden wall, Each blossom is a little face, And in it you may find a trace Of dainty fairy elf or sprite; And far into the starry night, If list'ning near them you should be, You'd hear them talk and laugh with glee: But in the morning they will seem So stately, you would never dream A word of truth was in this rhyme, So, farewell 'till another time.

J. F. H.



# FOREIGN NOTES.

#### MAIDENHAIR FERN.

Wherever cut flowers are used there is inevitably a good demand for fern fronds, and especially those of Adiantum cuneatum, and in a lesser degree of forms that have sprung from or are nearly allied to that good old favorite. Various substitutes have been tried, including the elegant and very durable South African Asparaguses, but it is the common maidenhair that is still principally relied upon for filling vases, fringing bouquets and working into wreaths. Adiantum gracilimum is sometimes asked for, this being very effectively interspersed among flowers in hand bouquets and wreaths, while A. mundulum is perhaps the best for backing buttonhole bouquets. For the latter purpose A. Paccotti is also suitable, this having more dense or tufted fronds, last well. In addition to being the best in a cut state and very effective as plants, these Adiantums are also among the most easily cultivated of ferns generally, and the mistake most often made is in unduly coddling them.

We prefer to work up a stock of seedling plants, these growing more freely than do those obtained by freely splitting up old plants just as they are commencing active growth in March. Where the fronds are kept very closely cut, few if any arriving at full maturity, no seed spores are formed, and it follows no seedlings are ever raised. When, however, a few strong plants are not cut from, these being kept in somewhat moist and not overheated houses, abundance of seedlings will spring up in all directions, notably on damp walls, the surfaces of the soil in undisturbed pot plants, floors and such like. Thousands of plants might also be raised by shaking the matured spore-bearing fronds over or laying them on the surface of well drained pots or pans filled with peaty compost previously baked to destroy the spores of other common ferns that it may contain, and then thoroughly moistened, covering with squares of glass only. No overhead waterings must be given, but if the pots or pans are set in other water-holding pans

in which a inch or rather more of water is always kept, sufficient moisture will constantly ascend to the soil. A shady position in a house kept at from 55° to 65° will answer well, and germination ought to take place in a few weeks.

As most gardeners are well aware. Adiantums may be freely and roughly split up early in the spring, the divisions. going into five-inch pots or larger sizes. The bulk of ours are either shifted into or returned, after the soil about the roots has been considerably reduced or combed away with the aid of strong pointed stakes, into clean well drained seven-inch pots, but there is noreason why much larger pots should not be used providing the plants are large enough to require them. A compost consisting of two parts of roughly broken up turfy loam to one of either peat or leaf soil, with a little charcoal and sharp sand added, suits these Adiantums well, but if only clayey or very heavy loam is available then ought much less of this and more fibrous peat to be used. This class of ferns when strongly rooted ought to have weak liquid manure occasionally. and that is one reason why loam if good is to be preferred to peat, the latter being most liable to become sour under the influence of liquid manure.

It is almost needless to add these fernsshould not become very dry at the roots during the growing season, nor should water long be withheld while they are resting. In the autumn and winter the fronds retain their freshness longer in an equable temperature of about 50°, a somewhat dry atmosphere also being maintained. A winter supply may also be had by shifting strong plants that have not been much cut from, and which have been kept in a greenhouse during the summer, into slightly larger sizes, and placing them into a fairly brisk heat early in September. The old fronds should be removed before they injure the young ones that are soon pushed up strongly, and if the supply obtained in this way is not particularly serviceable as far as durability is concerned, they are yet fairly

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profitable. The less these or any other ferns that are grown principally to cut from are treated to overhead syringing the more durable will be the fronds.

M. H., in Journal of Horticulture.

# A WEEPING NORWAY SPRUCE.

Under the name of Abies excelsa pendula, a French horticulturist has offered in the trade a variety of Norway Spruce which promises to be useful in many situations. It is a veritable dwarf grower,



as when propagated on its own roots by layering it will spread itself over the ground somewhat like the creeping Junipers. But it can be grafted as high as may be desired in the stock of the common Norway Spruce, and there forms a drooping head, as represented in the engraving here shown; the branches continue to grow downwards until they reach the ground, and then spread out over the soil. It will be specially valuable for rockeries where it can show itself to best advantage.

This is not the pendulous, branched spruce found in some catalogues, but a variety quite new and that grows very differently. The pendulous, branched Norway Spruce is a tree with an erect-growing stem, but whose branches acquire with age a pendulous habit, like those of the weeping willow.

The variety now mentioned was lately

figured and described in the Revue Horticole, and has not yet been introduced into this country.

#### HERBS.

Looking along the herb border the other day to ascertain if some spring sown things were making the necessary headway, I could not help thinking that in many, perhaps the majority of cases, the merits of herbs as ornamental plants are hardly appreciated at their true value.

It is by no means certain that they always receive their due share of attention, or are cultivated in sufficient variety; indeed, it often happens that some particular sort is wanted which has not found a place in the collection. I counted twenty sorts along the border, and there are yet others to complete the list, but even if the list was full and a small gathering of every variety were ready to hand, it would be no apology for the absence of the most ornamental in other parts of the garden. Take Chamomile, for instance. Apart from its merits as a carpet bedding plant, where it can be cut and hacked into any shape, always retaining its bright color, it is a most useful plant for furnishing odd nooks and corners where the soil happens to be very

poor and dry. Most things in such a situation would at best drag on a miserable existence, but the Chamomile is quite at home with its carpet of rich green, and its innumerable bright flowers. thyme bed is just now a sheet of soft bluegray, a mass of pleasing color that can not be beaten in the flower garden, whilst the silver and gold varieties are wonderfully pretty with their bright young foliage. Is there anything that appeals at once to the sense of sight and smell with much greater force than a well grown bush of lavender in full flower, and big clumps of rosemary are not to be despised? Individual plants of borage make nice specimens, and are very attractive when in full flower. A few can be used with advantage in back borders in the flower garden, unless this is already well stocked with that lovely perennial, not unlike borage in habit and color of flower (Anchusa italica). pinch of borage should be sown annually, as self-sown plants do not always make their appearance, and the leaf of this herb is always in request with the advent of hot weather. A few clumps of fennel are admissable in the wild garden where the large umbelliferous flower-heads have a bold and novel effect. Very handsome in foliage are tansy, chervil and burnet, and a large bed of chives has been very gay with its rather uncommon flowers. The above are a few of the inmates of the herb border that help to make this part of the garden as pleasing to the eye as it is necessary to the kitchen.

E. Burrell, in The Garden.

#### NEW VEGETABLES.

The Gardener's Chronicle gives the following abstract from "Revue des Sciences Naturelles Appliquées:"

New Vegetables.—Messrs. PAILLEUX & Bois describe, under the name of Mandera Cucumber, (Cucumis Saclieuxii), what M. NAUDIN considers a new species. It was introduced from Zanzibar, and promises to be useful for pickling.

Red Turnips.—Messrs. PAILLEUX & Bois also bring under notice a turnip of top-like form, red color, and strong flavor. It is adapted for garnish and for stews. It is known as Gongoulon du Kashmir.

Amphicarpæa monica.—This is a plant which matures its pod underground, and which would supply a fresh vegetable throughout the winter. The seeds also may be used like haricots.

Mitsuba.—The culture of this umbellifer (Cryptotænia canadensis) is recommended as a salid when blanched, or, in the natural condition, cooked as spinach.

Olombe.—A species of solanum (S. Pierreanum) from the Gaboon; with scarlet berries of an ornamental character, and which may prove useful.

## IVY-LEAVED PELARGONIUMS.

The ivy-leaved varieties now in cultivation are more elegant in growth and in the form of their flowers than either of the old large-flowered sorts or the zonals, whilst they are equally continuous in their blooming as the zonals. For hanging baskets they are unequalled, and in the form of specimens loosely trained round a few sticks, when the plants get large they can be turned to good account for the decoration of plant houses through the summer, and in autumn when blooming plants are not too plentiful. Where large specimens are required they must have plenty of root room. They may be potted when in full bloom without receiving any check, provided care be taken not to disturb the roots more than by removing the old drainage material. Teninch pots are not too large for full-sized examples, and even with this amount of room they will need assistance with manure later on to maintain a robust growth. Turfy loam of good quality, with a sixth part of rotten manure and a sprinkling of sand, is the right soil to use. Young plants, such as struck from cuttings during the present summer, will be in right condition for filling hanging baskets next spring; consequently the requisite amount of cuttings should now be put in. By striking them early the plants have time to gain strength before autumn.

## THE HUNT FOR ORCHIDS.

Those who live will see marvels when the Dutch and German portions of New Guinea are explored. Madagascar also will furnish some astonishing novelties; it has already begun, in fact—with a vengeance. Imagine a scarlet cymbidium! That such a wonder existed has been known for many years, and three collectors have gone in search of it; two died and the third has been terribly ill since his return to Europe—but he won the treasure, which we shall behold in good time. Those parts of Madagascar which especially attract botanists must be death traps indeed! M. Leon Humblot tells how he dined at Tamatave with his brother and six compatriots, exploring the country with various scientific aims. Within twelve months he was the only survivor. One of these unfortunates, traveling on behalf of Mr. Cutler to find butterflies and birds, shot at a native idol as the report goes. The priests soaked him with paraffin, and burnt him on a table, perhaps their altar. M. Humblot himself has had an awful experience. He was attached to the geographical survey directed by the French government, and seven years ago he found Phajus Humblotii and Phajus tuberculosus in the

deadliest swamps of the interior. A few of the bulbs gathered lived through the passage home, and caused much excitement when offered for sale at STEVENS' auction rooms. M. Humblot risked his life again two years ago and secured a great quantity for Mr. SANDER, but at a dreadful cost. He spent twelve months in the hospital at Mayotte, and on arrival at Marseilles, with his plants, the doctors gave him no hope of recovery.—Longman's Magazine.

### FLOWERS IN PARIS.

A writer in the Journal of Horticulture says: "The cut flower business in Paris at certain periods of the year must be enormous, and the supplies during May afford an idea of the quantities produced and employed in floral decoration in everyday life, as well as for special occasions of rejoicing or sorrow. Flowers evidently constitute an essential portion of Parisian existence, and they are used with a profusion and frequency by all classes that would be thought extravagance in this country. Still the florists themselves exercise an economy in their work that might be more commonly practiced here with advantage-namely, their bouquets, wreaths, sprays, baskets and stands are rarely crowded, the flowers employed are displayed to the best advantage, and the general effect is proportionately improved."

### IBERIS CORIFOLIA.

Where did this remarkably valuable species come from, and who originated it? I find one list of plants gives it as having been introduced from southern Europe in 1759: if so, we have had it in cultivation for 150 years. I place it at the head of all the perennial Candytufts. What a nice green tufted plant it makes, and how freely it flowers; and its corymbs of pure white blossoms are as handsome and symmetrical as can well

be. It is easily cultivated, and soon becomes a flowering plant. Last year I pulled a plant to pieces, and dibbled them into a cool and moist border, where they soon took root, and they make blooming plants sometimes the first, and certainly the second year. Some one once termed it the dwarfest and neatest of the perennial Candytufts. I am not sure it is quite the dwarfest, but that it is the neatest there can be no doubt. It appears to be the hardiest of hardy plants, it adapts itself to most soils, even heavy ones; it will flower on a shaded and moist border as on an open and dryish one, though the latter position is preferable. In some localities it may produce seeds; they have appeared in a few instances on my own plants, but as far as my own experience goes they are invariably infertile. If information exists as to its origin, I shall be pleased to be made acquainted with R. D. [Iberis saxatilis var. corifolia, South Europe.—Ed.]

# Gardeners' Chronicle.

# PRIMULA JAPONICA.

One of the grandest of the hardy primroses, is at its best just now. It is one of the easiest to manage, and by far the most suitable for borders or beds, as it is quite able to take care of itself. Excepting the Polyanthus it is the only hardy species that seeds in the open air with any freedom, and from a few plants a large colony may be formed in one year, It forms such beautiful groups when left to itself that we never touch it, and the effect is the most charming and natural arrangement possible. Another gem rarely seen is the new Snowdrop primrose (Primula Reidi) in flower now at Kew. The drooping pure white flowers, delicately scented, are very charming when the plants are healthy. It does not seem to be a long-lived species, but it is so easily raised from seed that this is immaterial.—London Garden.



# PLEASANT GOSSIP.

# THE OLD-FASHIONED GARDEN.

How dear to my heart is the old-fashioned yard, Where laylocks and hollyhocks grew; Where, along by the path that led to the door, Were flowers of many a hue.

Just down by the gate a syringa tree waved
Its feathery blossoms of white;
On the opposite side, like a grand flaming bush,
Stood a scarlet hued salvia bright.

There tall tiger lilies, in orange and black,
Looked down on the harebell so blue;
There were English primroses and fragrant clove
pinks,

Sweet williams and candytuft, too.

There old damask roses were scattered about,
And daffy-down-dillies were seen;
There were pink ragged-robins and cockscombs so
red,

And delicate ribbon grass green.

There were bachelor's buttons and Johny-jump-ups, With tulips and pæonies gay,

And plain marigolds, and the dear mignonette That's found in our gardens to-day.

There were asters, and phlox, and feverfew white, With bright portulaca around, Nasturtiums, lantanas and pretty larkspurs, And low creeping myrtles were found.

A honeysuckle vine ran over the porch,
And some dainty sweet peas grew quite nigh,
While down in the grass, in a cool, shady nook,
Were violets, blue as the sky.

There were sweet smelling shrubs of various kinds, So dear to our grandmother's heart; Southernwood, lavender, and rosemary sprigs In ev'ry nosegay had a part.

That old-fashioned garden! I see it again,
With the scenes of my childhood's dear home,
Though now, in the land of the orange and pine,
Afar from its pleasures I roam.

J. M. S. CARTER.

#### FLOWERS FOR THE CHILDREN.

Like attracts like; what more natural, then, than the affinity which exists between the two loveliest earthly creations—children and flowers?

If one could believe in the transmigration of souls, it would not be hard to trace the sunny faced child in the pansy and the angel in the child.

However curious and delicate the link which connects flowers and little people, it undeniably exists in greater force than the unthinking imagine.

Many a time have I seen a little boy of

six or seven years of age who seemed incorrigible under punishment, become tractable with the promise of a pansy for his buttonhole.

How quickly the hard clouds cleared from the little face, the eyes shone bright as stars after storm, the little mouth curved into sweetest of smiles, and all the dimples broke into play when the promised treasure was placed in his hand.

His mother is wisely acting upon the hint, and finds a pansy bed more effectual in the management of this little individual than bundles of birch boughs or apple shoots.

Is not this advancement along the line of civilization? To give the principle wider application it might be reduced to an axiom that, just in the proportion that natural beauty finds a place in our homes, and the love of it in our lives, do we rise in the scale of culture.

Surely that high priest of flowers, JAMES VICK, of revered memory, understood this underlying principle of human government through the finer instincts, and the educational power of beauty when he made his generous offer, in years agone, of free flower seeds for school grounds.

Legion are the teachers who could testify of turbulent schools rendered docile and vacant minds aroused to interest by the cultivation of a few flowers upon the school grounds.

Given something better to engage the attention and awaken the interest of the eager minds of childhood, how can they be bent entirely upon mischief. And true it is,

You must sow all the ground to good seed, Or Satan will sow it to tares.

I leave it with you to consider what better influence you could throw about the life of your child than the purifying influence of flowers.

Ah! the love of the beautiful divinely enshrined in the human heart, how strong a band it is to draw us heavenward not even the wisest know.

O, then, for the children's sake plant flowers. What can breathe upon the young soul, so delicately responsive as yet to every impression, with so tenderly revealing a power as the balm of flowers?

They afford companionship without contamination; instruct without injuring; and, while cultivating alike eye, mind and heart, develop the budding intelligence by the sweetest series of graduated object lessons ever set before a pupil.

The lesson of their voiceless lips is for purity, innocence and refinement, which the little one interested in their growth is

quick to learn.

So I put in my plea, for the children's sake, plant flowers, and plenty of them, as choice and as many as possible, but

flowers anyhow.

Portulacca to tell off the sunny hours, morning-glories to bloom in the shade, four-o'clocks to greet them when school is out, and pansies, which with wistful eyes "follow the westering sun." Lily of the valley for its modest humility, rose geranium and lavender for fragrance, and verbenas and phlox and zinnias and asters for profusion of bloom. Molucca balm for the curious formation of its flowers, and roses to gather by the armful, and, whatever else you fail to plant, be sure and give them sweet peas and pansies in abundance.

Give them seeds to plant and time to attend to them, under your careful instruction, and then let them reap the reward of their care and industry by gathering the flowers just when they like.

Encourage the gift of a nosegay to the teacher or little friend, teaching as you can tasteful selection and arrangement.

So hedge the child about with beauty, draw his heart early into unison with nature's, and beside the pleasure you have given him the enlarged vision, the widened sympathy, which will bless his life, you will have set a force for good in motion which may result in the blossoming of a soul through all eternity in the "gardens beyond the skies."

DART FAIRTHORNE.

# FERNS FOR THE HOUSE.

I hope our plant lovers will turn their attention to ferns for the house. Our small conservatory looked so bare when the geraniums, fuschias and callas were carried out that we dug lots of ferns in the woods, potted them, and they grew beaubeautifully. Ferns can grow when the house is dark and the hot sun is shut out. We had nice ones in the front hall and in north windows. It is said they make rooms cooler in hot days, especially if they are well showered. My glass case is made of three old window frames, each with a single pane of glass, with end pieces fitted in, and it is put over a zinc tray that has pieces of broken crocks in the bottom and sifted sand on top. I have three Florida ferns that have done well, Lycopodium and several Begonias. The best of it is, you have a lovely thing for the sunless window, and hardly have to raise the lid all winter.

SISTER GRACIOUS.

#### PARADISE REGAINED.

It is often said that there is no longer a Paradise on earth; yet I have seen and enjoyed what is, at least, a near approach to it—and on a farm. Not where the farmer drives the family, and the wretched beasts, and allows the work to drive him—where the narrow variety of food is spoiled by cooking; where dirt and discomfort reign, and kindness, or even kind words, are things unknown; where violences of exertion, and violences of eating and of drinking, and lack of comfortable clothing and shelter cause continued sickness and pains, and general brutishness.

There are some such farms and farmers, but this Eden that I know is their opposite. There is daily work to be sure, as there was in the "keeping" which the primitive Eden required, and which man's constitution demands, but it is so managed and controlled and kept ahead as to furnish actual pleasure to all the smiling band of old and young who unite to carry it through to its generously rewarded end. Tidiness and brightness are everywhere, on the faces and clothes of the happy family, in the rooms, in the stables and their tenants, at the tables, and in the fields, and as no one causes disorder, or ever leaves anything incomplete or out of place, this neatness and external comfort are constant. Life is enjoyed by all, in the house or out of it. The choicest food cooked with skill, and the animating exercise excite happy bodily feelings; while the mind is equally fed with the pleasures of literature and in the rich fields of rural science; with joyous conversations and lively pastimes. The farmer himself, who is the center of all these sources of delight, is so honored, so loved, so surrounded by satisfaction, and so grounded on independence, as to have reached a happier contition than any monarch or grandee that you can name. It is he who has founded this kingdom and who rules it so happily, and whose death, when it arrives, will be attended by widespread and genuine grief.

#### NICOTIANA.

In Vick's Floral Guide for 1890, under the title Nicotiana, is the following: "Of the varieties of tobacco cultivated for the fragrance of their flowers, the newly introduced Nicotiana affinis is the best we have grown. The plant attains a height of three feet, and at evening and early morning is covered with deliciously scented, large white flowers." I am delighted with Nicotiana as a house plant. Last August I planted the seed in boxes, and potted them, always keeping in a sunny window. The plant is handsome, and at Christmas it was in bloom. The flowers are star-shaped, and so fragrant that the house seems filled with it, especially in the evening. It is a good plant for amateurs, for the insects do not trouble it, and if treated once or twice a week to a mulch stimulant, will take care of itself and be a handsome plant even without the flowers. After doing duty nearly all winter, I plant it out in the garden, and it will be a lovely plant all summer.

SISTER GRACIOUS.

## A HAPPY COMBINATION.

In my drive yesterday afternoon I noticed in a neighbor's garden a frame covered with two plants, the combination being so graceful and lovely that I stopped to admire it. Its beauty for our very own is so easy of accomplishment that I herewith describe it. A frame of any desired shape, material and size will answer. This was: lattice diamond-shaped, four feet wide, eight feet high, with pointed top. On it was growing a luxuriant vine of Lonicera Halliana variegata and cypress vine, two varieties, white and scarlet. The Lonicera is a perennial vine, cypress an annual, which though when once es-

tablished to perfecting seed, re-seeds itself year after year. The commingling of these two plants was lovely, the delicate lace-like leaves of the cypress entwined with the delicate green-gold leaves of the Lonicera with dashes of intense scarlet and white, star-like flowers of the cypress, made a picture well worth striving to imitate. These effects are so lovely and so easy to secure that after seeing we wonder that we did not think of it before.

Mrs. J. S. R. Thomson. Spartanburg, S. C.

## VICK'S CAPRICE ROSE.

A. H. F., of Akron, Ohio, writes of plants sent to him this spring, and says they "were received by me in splended order and transplanted to my garden, but under unfavorable conditions, being very dry, with a hot wind which lasted for about ten days, and the leaves fell off most of the plants. But the timely rains have brought them out in good shape, and we have had the extreme pleasure of seeing the new striped rose 'Vick's Caprice,' put forth a beautiful flower, which is certainly a novelty as well as a beauty, with a fragrance peculiar to itself and different from any other rose I have ever seen. I have a large variety of roses and flowering shrubs, but I must say 'Vick's Caprice' has been watched the closest and is the favorite of the garden. This rose is all that they claim for it, 'a beauty,' and is a perfect striped rose, and I feel that my collection would be very imperfect without it."

#### THE FUCHSIA BEETLE.

In a recent number of the American Florist Ernest Walker contributes an article on this insect which, it appears, is troublefome to fuchsias at New Albany. Indiana. He describes it as a "shining, black beetle, with an iridescent luster, about one-eighth of an inch long, which makes its appearance on fuchsia plants about this time of the year—coming in a great swarm in a single night. work is rapid and destructive." The writer states that he has tried every insecticide without effect. Further: "From Prof. L. O. Howard, of the Division of Entomology, Washington, D. C., we learn that the insect is Graptodera exapta, and that in the larval state it feeds upon the leaves of "Fire weed" (Erechtites hieracifolia), and the Evening primrose (Œnothera biennis). The swarms which suddenly make their appearance on fuchsias in all probability develop among these plants, one or the other of which species will doubtless be found to be abundant wherever the fuchsia beetle proves troublesome."

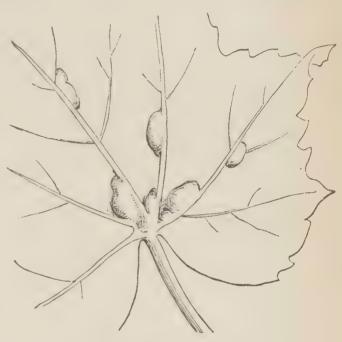
In this last paragraph there is an appearance of a mistake, though possibly it is not so. The question we would raise is this: Is not Erechtites hieracifolia erroneously mentioned instead of Epilobium angustifolium? The reason for this surmise is that the latter plant has had the name "Fire weed" applied to it, and it is of the same botanical order as the Œnothera, and the Fuchsia, all being Onagrads. From the fact of the Œnothera being mentioned it would appear as if the beetle were partial to plants of the order Onagraceæ, and we know that many kinds of insects are very true to botanical orders in their diet.

### GRAPE VINE TOMATO GALL.

In our last number, page 220, mention was made of injury to grape vines by a gall insect. A leaf and portion of stem which has been injured by the insect we have had sketched and engraved, and here present them to our readers. The leaf shows the galls formed on the veins, and in the other engraving shows them at the nodes of the stem and on a leaf stem, three on the stem of a flower or fruit cluster, and one on a flower bud. These specimens were taken from the vine the 23d of June, and the larvæ had then escaped. At the right of the stem is shown a gall cut in two, showing two cells which had been occupied by larvæ.

In his fourth repert of the Injurious and other Insects of the State of New York. Dr. LINTNER gives a very good account of this gall insect. It appears that Professor RILEY noticed it in his 5th Missouri report, and there called the gall the "grape vine tomato gall," and described it as a "most variable gall, being found of all sorts of fantastic shapes, from the single, round, cranberrylike swelling on a tendril, to the large collection of irregular bulbous swellings on the stem or leaf-stalk; sometimes looking not unlike a bunch of currants or a bunch of grapes, but more often like a collection of diminutive tomatoes." Dr. LINTNER in alluding to some specimens from New Jersey, and to a specimen figured by Professor RILEY in his report, says: "Such forms certainly could not be suggestive of small tomatoes, nor those illustrated in the figure, nor any that have come under my observation. The common name proposed for the gall would, therefore, seem to be an inappropriate one." With this observation we must all agree, but, for some time at least, the name given will remain in use.

It is a native insect which infests our



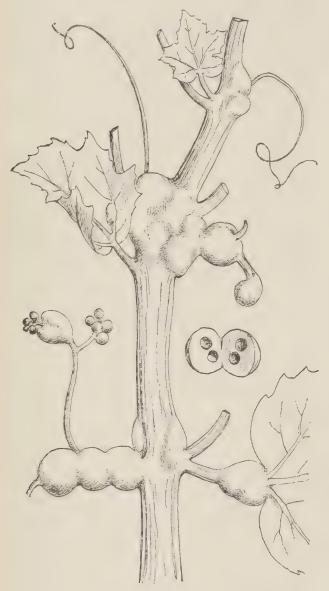
GALLS ON VEINS OF GRAPE LEAF.

wild vines, and was first described by Baron Osten Sachen in 1862. The gall he thus describes: "Swelling of the stem and leaf-stalk of the wild grape. This irregular, succulent swelling, which becomes red on the stouter and riper portions, extends not only along the stem and leaf-stalks, but also invades the leaf-ribs. It contains round hollows of about 0.1 inch in diameter, with an orange-yellow larva in each. Some of the hollows are often abandoned by their inmates and invaded by numerous thrips."

Without giving a full description of the ffy, it may be said that it is quite small, being only about one twenty-fifth of an inch in length, of a pale reddish color and blackish head. It is known scientifically as Lasiopteris vitis.

The galls are very variable in size and form, from less than a quarter of an inch in diameter to some nearly an inch in length, often several galls running together, forming a long compound one. Dr. LINTNER notices that the galls on the

leaves are smaller than those on the stems, "averaging two-tenths of an inch in diameter. They, in most cases, rest on the veins, but a few only touch them on one side; rarely, they are entirely disconnected. Their upper side is red (on the upper side of the leaf), while the ob-



GALLS ON THE GRAPE STEM, LEAF STEM, ETC.

verse, withdrawn from sunlight, is green. Those containing a single cell are round, with more than one-half of the gall growing on the under side of the leaf, and with its connecting vein bent downward on its surface. The larger number are single celled—the result of a single oviposition. The confluent ones, or even the elongated, occurring on the vine more frequently than on the leaf, of course, with two or more cells. On a part of a leaf within an area of an inch and a half in diameter, thirty galls were counted." The larvæ are less than an eighth of an inch in length, of an orange yellow color, and apparently remain in the galls but a few days, the life history in this respect not

being fully known. Dr. LINTNER notices the escape en route of the larvæ from the galls of specimens sent him, and asks: "Does the picking off of the vine have such an effect upon the sap as to cause the larvæ to desert the galls at once, even before they have fully matured? The apparent eagerness with which the closely related larva of the clover seed midge, Cecidomya leguminicola, creeps from the clover head very soon after it is plucked, is recalled in this connection."

As stated last month, the proper thing to do as soon as these galls are seen is to remove the leaves or portions of stems bearing them and burn them.

As the insect is native and can always have the wild vines to breed on, however closely it may be stampeded from our vineyards, we shall probably never be entirely free from it; on the other hand, as it never has appeared in much force, it is not probable that it will, but it is not best to encourage its increase by neglect. It has been reported from various parts of the Northern States, and is, without doubt, wide spread.

## EQUISETUMS -- A GORRECTION.

The artist who so finely illustrated the poem "The Scouring Rushes," in the July number, drew the wrong species in the small picture, giving us the field horse-tail E. arvensis, instead of the E. hyemalis which was meant. The field horse-tail has a perennial root but annual stem, and does not see both summer and winter as the hyemalis does. This latter is an evergreen and has much the same appearance at all times of year. I saw at the Genesee river at Lortage, N. Y., last summer, E. hyemalis four feet high and half an inch or more through, but they are generally smaller, a jointed, tapering stem without branches, having a seed cone at the summit. We see in the cut both the fertile seem with its seed cone and the sterile plant having only leaves: the fertile stem should be withering by the time the other has made so much growth as shown. They are common in wet places in early spring, nearly white except the brown sheaths at the joints, the cone producing vast multitudes of spores that look like pollen. Dust a microscope slide with them and look through the lenses, the field in a moment becomes a scene of the wildest confusion; they

leap and roll and tumble about. It is the expansion of four arms that look like stamens closely coiled around them at first that causes the tumult; these once straight, the spores are quiet as sand again. Instead of the new plant sprouting at once from the spore like a microscopic potato plant, which would seem easy enough, a sort of leaf (prothallus) is formed, then upon this what answers to the flowers arise, the archegonium being the same as the ovary and the antheridia, equivalent to stamens of ordinary flowers. It is as though a geranium cutting should insist on flowering and ripening a seed before the new plant would grow; the lives of the spores being freely ventured in this roundabout process, with multiplied chances for failure, for no reason that we can see except to bring this family into harmony with the general scheme of vegetable life as we now see it, the difference between the practically invisible and most obscure prothallus of the horse-tail, or fern, and the rose and lily, showing the progress on this line so far made since life's earliest days, when so far as can be told from the geological evidence they were the most highly organized of plants.

E. S. GILBERT.

# LILY OF THE VALLEY.

A correspondent, S. L. W., Mt. Vernon, Ohio, complains of an old bed of Lily-of-the-Valley which does not give much bloom.

In this case we should make a new bed, taking care to have it in a place where it would be shaded a portion of the day. But the soil should be well drained and we would take some pains to get up a considerable quantity of turfy soil, such as old sods decayed, and mix it together with some sand in the bed and some well-rotten manure, spading all together. Take up the plants and separate them and plant them in the new bed, about a foot apart. The transplanting can be done the latter part of September or in October.

#### BEGONIAS - DAISY.

I have found much instruction in the questions and answers about plants in VICK'S MAGAZINE, and now would like to ask a few questions myself.

First, I have some small seedling tuberous begonia plants. Ought they to be put away in autumn as we do the older plants, or should we keep them

growing? Should begonia plants started from leaf this summer be put away in autumn? Should plants of the double daisy (Bellis perennis) be left in the open ground, put in cold frame, or be brought into the house for wintering? S. D. R., Florence, Mass.

Dry off the small tubers of the begonias and store them away in the same way as larger tubers are.

Only tuberous begonias need drying off; the other varieties should be kept in full foliage.

The daisy (Bellis perennis) is hardy here, and undoubtedly is in Massachusetts. It can be wintered in the open ground or in a cold-frame. Some dry leaves placed about the plants might be a useful protection.

### THE FLORISTS' CONVENTION.

The meeting of the Society of American Florists at Boston, August 19-22, promises to be one of much interest and profit. A number of essays from persons of ability are promised, and the following list of subjects has been proposed:

- I. Berry-bearing Plants for Fall Use?
- 2. Twenty-five Plants Indispensible to the Extreme South?
- 3. Acclimation of Southern Plants in the North?
- 4. Twelve Best House Plants for Winter Gardening?
- 5. How must Lilium Auratum be Handled to make it a Permanent Success in Open-air Culture?
- 6. Can the Hellebores be Grown to Advantage by the Commercial Florist?
- 7. Can we Reasonably Expect a Race of Early Chrysantheums, Blooming in September and October, Valuable for America?
- 8. Best Method of Treating Callas during Summer to have them in Bloom during the Holidays?
- 9. Best Method of Forcing Early Hybrids?
- Twelve Best Hardy Shrubs for Florists' Use?
- II. Twenty Best Native plants Suitable for Florists' Use?
- 12. The Use of Foliage in Connection with Cut Flower Work?
- 13. How to Increase Public Interest in the Society and Its Objects?
- 14. Is the Selling of Flowers, etc., through Commission Men the Best Possible Plan of Marketing our Produce? (To be answered by a grower, a commission dealer and a retailer respectively.)

15. What can be used to make a Vapor that will Destroy Red Spiders and not Injure Vegetables in Greenhouses?

16. Petroleum: Is it Profitable in

Greenhouse Heating?

17. What can be said in Favor of pot plant.

Overhead Heating?

Thé be

18. Is Double Thick Glass the Best and in the Long Run the Cheapest?

The last day of the meeting is to be given up to social enjoyment. A trip in Boston Harbor and along the Massachusetts coast is to be taken, and a banquet will be held at Nantucket Beach. These entertainments are to be given by the Boston Gardeners and Florists' Club. Florists who may go to the convention can secure tickets from the railroad companies at one and one-third rates for the round trip.

#### GLEANINGS.

Plant Thunbergia seed the hollow side down.

The Dahlia was known only as a single flower twenty-five years ago. The first double one appeared in 1814.

Dahlia cuttings are rooted in sand in the ordinary way. The soil to grow them in should be neither light nor heavy, but exceedingly rich.

New varieties of dahlias must be raised from seed.

Grafting sometimes increases the size of fruit and is made the means of adapting plants to adverse soils, and often modifies the size of the plant.

The new abutilon Eclipse not only has fine foliage but retains its blossoms, and blooms freely.

Put four or five buds of Roman Hyacinth into one pot for good results in bloom. Be sure and secure good bulbs.

Latania Borbonica palms are widely used for decorative purposes.

A wise lover of flowers provides loam and sand, and moss, boxes and pots, in the fall for work in the spring. It saves both loss and vexation.

The best way to start flower seeds is in shallow boxes.

A small iron wash sink or one made of zinc, set in a frame like a table in the sunshine, with an ordinary kerosene lamp underneath, is an excellent amateur hot bed

The Daphne Indica requires good drainage.

Impatiens Sultani cuttings root as freely as coleus.

No garden should be without a bed of narcissus.

Liluim auratum is a most satisfactory pot plant.

Thé best asters are the transplanted ones.

Pinching the ends of fuchias not only improves shape but gives abundance of flowers.

Pinch back the coleus and achyran, thus to make them spread.

Tie up roses and chrysantheums and carnations, before they bend and break.

Life is too short to deny one's self flowers to beautify and give joy to the home circle.

MRS. H.

#### JASMINUM REVOLUTUM.

Among the three house plants saved when our house was burned last fall, was the Jasminum revolutum, and it gave such admirable satisfaction that I must report it. It is a very thrifty grower, and blooms profusely, and even with bad treatment is a far more satisfactory plant to cultivate than the chrysantheums. It needs little care, and no insect disturbs it, while its foliage is lovely in the arrangement of cut flowers. Unlike the grandiflorum, it stands a very cool and fluctuating temperature, and blooms in spite of difficulties like some children enduring all sorts of hardships, who laugh and sing and frolic all day long.

We need this plant, with our geraniums and begonias, heliotropes and abutilons, for our winter cheer. Although not sweet, it blossoms bright and clear, when winter seems cold and drear.

MRS. HOSKINS.

#### THE ORIENTAL POPPY.

I have never grown a flower which elicited so much admiration and gave so much satisfaction with so little trouble as the Oriental poppy. It blooms just after the tulips have faded in June and before the summer annuals, and with a dark background of pines and cedars, and among clumps of shrubbery, the effect is most brilliant. The flower stalk is three feet in height and the flower measures from eight to ten inches across.

HARRIET E. PIPER, Dublin, N. H.

#### SUMMER CAMP FOR BOYS.

Last month we noticed the Boys' Camp near Worcester, Massachusetts, established by the Worcester Natural History Society. Now we are pleased to say that this happy idea of assisting in the amusement of the boys, while at the same time they are trained and instructed in useful arts, and taught some elementary ideas of useful sciences, is finding favor in the community, and the boys of Western New York will have similar advantages afforded them. Professor Arey of the Rochester Academy, assisted by a corps of instructors, has established a camp on the west side of Canandaigua Lake, where a good company of boys has been gathered and enrolled. Here they will remain for a month, or until the middle of August. They will be under military discipline, and their time will be mostly spent in games and recreations, such as boating, sailing, fishing, swimming, etc., hearing a lecture occasionally, making excursion parties and collecting natural history specimens, such as shells. plants, etc., studying the geology of the surrounding region, at night receiving lectures on astronomy with the use of a telescope, looking at the invisible world through microscopes, and various other entertainments. The number in camp is about sixty. We believe and hope that Professor Arey will meet with the highest success in this enterprise. Canandaigua Lake, with its shores of varied beauty and interest, is a fit selection for the camp. This gem of the lakes is becoming every year more popular and attractive to tourists and sojourners, and especially since its equipment with new and handsome steamers, and the new and commodious hotel at Seneca Point, with its genial and attentive landlord, C. D. Castle, assisted by his efficient wife.

## THE CORTLAND GRAPE.

A letter, received from R. Lambert & Sons, of Windsor, Ontario, who are propagating and disseminating the Cortland grape, assures us that the grape is all that is claimed for it. Further they say: "The originator, Mr. Cleary, is an old Rochester man who has had many years experience in the nursery business, with Ellwanger & Barry, and is now a resident of Cortland, N. Y., whence the variety derives its name.

"We have two acres in bearing condition in our vineyard this year, and expect to be able to put the first ripe grapes in the Toronto market this year, raised in Canada, as we did last year.

### EARLY MARKET POTATOES.

I have dug my Early Market potatoes, which I got from you last spring, and am more than pleased with them. I have selected a few—ninety-three potatoes—not the largest but the most perfect in form, and they are beauties, according to my judgment. The ninety-three weigh eighty-seven and one-half pounds.

M. J., White Stone, Va.

## THE FRUIT SEASON OF 1890.

At the time our last number went to press, in June, the condition of the apple crop was not fully known. Now, however, there is no longer any doubt, and we are sorry to state that this crop will be one of the smallest ever known. The little apples commenced to drop from the trees in June, and the crop is practically lost. Only some summer varieties and a few kinds of winter sorts will produce a very light yield. This .condition prevails in all parts of the State, as. also, in other Middle and Western States. The apple orchards of Northern Vermont, New Hampshire and Maine may do somewhat better, but they will amount to but little in furnishing a market supply. But very few pears will be produced, and the same is true of peaches; the great peach orchards of the Delaware and Maryland peninsula have been computed to yield this season only some twelve thousand baskets in all. berry crop in most parts of the country has been a fair one. The vineyards of the Atlantic States, with mildew and rot to contend with, and many of them rosebugs, cannot be expected to produce much, and, in fact, we learn that in many of them the fruit dropped very considerably soon after blooming time. In Western New York there is probably an average crop, but it may yet be largely reduced before it matures, as mildew is showing itself in some vineyards. It does not threaten to be serious, and during the fine weather in July it has made but little progress. A continuance of bright skies is hoped for to favor this crop.

Under the present conditions it is probable that California fruit shipments will meet with profitable sales.

### NEW YORK STATE FAIR.

The semi-centennial exhibition of the New York State Agricultural Society will be held at Syracuse, September 11-18. This will be the first exhibition on the grounds purchased for the permanent use of the society. The managers say that they have more liberal rates and better unloading and loading facilities than ever before, and far in excess of any other Entries for exhibition fair grounds. should be made not later than August 11th, except those of implements and machines, and flowers and fruits, which may be made up to the opening day. The prizes are more liberal than have been offered by the ciety, and the commodious buildings now being erected should make the closing exhibition of the first half century of the society the best agricultural show ever held in the Empire State. Prize lists and entry lists may be obtained from the secretary, J. S. Woodward, Albany, N. Y.

#### SWAMP LAUREL OR SWEET BAY.

This shapely small tree, the Magnolia glauca, is very desirable for the lawn where it can be planted singly or in groups. Its leaves, leathery, smooth and shining, give it always a fine appearance, and when in bloom it is a very attractive object. The flowers, of a creamy white color, are deliciously fragrant and are produced later in the season than any of the Chinese varieties. A specimen under our observations completed its blooming season the middle of July, this being the latest blooming of all our ornamental trees. It is quite hardy here, and is a slow, compact grower. It is too little known.

#### GARDEN WORK.

The present month is the one in which most attention in the garden will be required to care for the growing plants and destroy weeds, and little to their propagation. Still a little spinach and radish and cress seed can be sowed for late fall use.

Strawberry beds should be kept free from weeds and the plants where they are too thick, and crowding, thinned out. If there should be a lack of rain, see that the celery trenches are supplied with all the water they need to keep the plants growing freely.

After the fruit has been gathered from the gooseberry and currant bushes, the watchfulness that thus far has been kept to defend them from the worms is apt to be relaxed, and the leaves soon become a prey to a brood of devastors that has grown up unnoticed. The dusting of the bushes with hellebore should be kept up as long as necessary to preserve the foliage and ripen the wood perfectly. Upon the perfect maturity of the wood depends the ability to produce a good crop the following year. Cuttings of many kinds of plants made now and dibbled in, in a nice piece of ground, will root easily on account of the warmth of the soil and the favorable atmosphere: when first put in, water and give a little shade, which, however, should be withdrawn as soon as practicable. Most of the soft-wooded house plants can be increased in this manner, and, also, many kinds of shrubs.

Beds of foliage plants need to be watched and trimmed and kept in shape; clipping off the tips of the growing shoots will make the plants branch out and thicken up, and spread into a compact mass.

Seeds of pansy, carnations, picotees and sweet william can be sowed for flowering plants the following year.

## THE NORFOLK GRAPE.

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This variety of half foreign origin, which was sent out some years since as an early Catawba, is very subject to mildew, so much so that we think it ought not be kept where there are any other varieties. It is a mildew breeder. Even without this fatal propensity it is not worth raising, as the quality of the fruit is not quite pleasing and the clusters are too loose to look well. It should be abandoned.



# OUR YOUNG PEOPLE.

## DORA'S JOURNEY.

"Hear what aunt Woodburn writes," exclaimed Dora Brandt, with flushing cheeks, as she turned to her mother, with open letter in hand; "Rex, come here, a part of this concerns you, too."

(Rex, rising with stately dignity, lays his nose in her lap, looking upward with intelligent eyes, his tail wagging approval

as he listens.)

"I wish you could come to us for a few days' visit," read Dora, "and take Marguerite back with you. She has been so closely confined in her care of me for the past few months that she positively must leave the city for change and rest, or there'll be two of us to wait upon. I can't understand why your father don't leave the old homestead place and get in reach of a railway. Not having done this, he'll surely let you drive your pet pony—with Rex along for company and care-taker— (here Rex wags his tail furiously,) that distance for once, well knowing the reliability of all three - daughter pony and dog.

"Don't forget my passion for comely wild flowers. Fetch me, please, such as you find growing along the wayside. Of course, I shall expect the usual bouquet from your own flower garden, also. Don't forget even the periwinkle from the mound around the cut-leaf birch. I can almost see the tree before me now—its shapely, white trunk rising smooth and straight from the ground and gleaming through the delicate foliage above. Such a beauty! Don't wait to write, but come right along; we shall expect you."

"Rex, old fellow, you have an invitation," said Dora, as she stopped reading, "do you want to go? Smell this letter; smell it."

The dog obeyed, and seeming to recognize its source, gave little short barks of happy response, and then followed Dora, who went to the barn to find her father, and to tell Gyp he must have no more grass for the present, because he had a long journey to make and could travel better on dry feed. Gyp laid his nose on

her shoulder and whinnied in response, though just how much he understood one may not venture to declare. Then the father, sitting on the shiny edge of a bin of oats, listened to the letter, Rex watching the faces of both the while.

"Rex," said his master, "do you want to take Dora safely to aunt Woodburn?" Rex barked "yes," over and over, prancing around them both as though wild

with joy.

"We'll let that settle it," said Mr. Brandt. And so the second morning thereafter found Dora ready for departure. A broad box beneath the seat in the "surrey" contained a generous supply of freshly cut, dewy flowers. The aunt's partiality for white ones had been remembered, and not one of those in bloom was missed.

There were white roses first of all; white Canterbury bells, looking like carved ivory; spiræa, both dwarf and shrub varieties; the rose-like campanula, so lasting as a cut-flower; pæonies; valerian; candytuft; feverfew; sweet williams; double daisies and pinks, all white, the whole making a beautiful mass of fragrance and purity.

Next came roses, this time crimson, pink and variegated, then long-stemmed clusters of the agapanthus, mimic "apple blossoms" from pelargoniums, the many hued blooms from geraniums, while the buttons of double buttercups contributed their gold, and variously colored varieties of those named in the white list swelled the number, with others still unnamed, until it seemed amazing that Dora's unpretentious flower garden should furnish so much bloom at once.

Waving her hand in mock adieu, she commanded the weeds to lie low, and bade the flowers to weep only dewy tears for her absence. Then, gathering up the reins, she nodded a second good-bye to smiling parents, and was off.

The early morning was glorious. Dame Nature was resplendent in her jewels no evening display of those for her—the stars are sufficient then. The growth of summer was in its prime. Every leaf seemed quivering with life. The very air was exhilarating. Everything seemed in harmony with Dora's inner, happy self. "God is good," she murmured. "to give us so beautiful a world as this."

Gyp tossed his head for freer rein as he sped along, and Rex gave little barks of satisfaction as he crouched in his place

watching their progress.

Thus on they went, until one hour, two, three had passed. It was ten o'clock. For some time the country had seemed growing wilder with every mile. By and by this would change. But now precipitous hillsides were becoming frequent, wild flowers more and more plentiful. Simple ones they were, but beautiful they must be ever. So many buttercups and daisies in bloom Dora had never seen in all her life before. Besides these, there was no end of meadow rue, with its delicate white blossoms, while pretty Scotch caps hung thick on frequent bushes.

"Once getting out will secure all these," thought Dora, "if I find more further on, I can throw my wilted ones

away.

"Stay right here, Rex," she commanded, as he whined to follow her. Then petting and patting Gyp, she told him to rest in the shade while she gathered flowers. Presently she heard a stir on the near hillside, and looking up saw a man with a rifle, a hunter, perhaps, slipping and sliding down the declivity, catching at saplings as he came, and pausing to stare at the scene below before plunging on again. Dora thought the man looked uncanny and felt a little tremor.

"Rex, watch him," she said softly. The dog leaped from the surrey and stood defiant, with low menacing growl. This seemed to anger the man, and raising his gun to his shoulder he aimed at the dog. Dora instantly sprang toward him, exclaiming:

"Don't shoot, please, you'll frighten my horse. Lie down, Rex." The dog obeyed, and the man slowly lowered his gun. Dora suddenly deciding that she had flowers enough, stepped to the vehicle, hurriedly placed them, and mounted to her seat, Rex leaping in after her.

"He'll be nearer the man's throat," she thought, "if he try to molest me."

But some contra feeling kept her from driving on. She did not wish him to think she was alarmed and trying to escape him. So she waited until he was nearer, and then smiling and bowing, she said:

"Good day, sir. Allow me to thank you for sparing my dog. It was very kind of you. Besides my pony would have been terrified by a sudden shot so near him, and much damage might have followed. So, you see, my thanks are very sincere."

"Ef you keer fer that brute it's well he laid down," muttered the man. "I calkelate I've got as much right to stay hereabouts as wot he hev. Ef he's inclined to be peaceable, so be I," and with that he strade on his way.

that he strode on his way.

Glad to part company with so unpromising an acquaintance, Dora hurried her pony forward, resolving to stop very near a farm house for the midday rest for self and pony. This, when realized, was rendered all that could be desired by the shade of a wide-spreading tree, a luncheon box for Rex and mistress, one of oats for Gyp, and two friendly callers from the farm house. These invited Dora to visit their flock of pea-fowls. which flock, they assured her, although hatched and reared on the place, were sure to take leave some morning at daybreak and strike for the nearest woods. going in Indian file behind a leader, never to be seen again by their owners. Twice had they lost their gorgeous birds in that way, but had managed, as now, tohave secured enough of their brilliant plumage to pay for care and keeping.

This was something new for Dora toponder over as she resumed her journey, the beautiful birds, their native instinct solong dormant asserting itself at last in favor of the wild life of the woodlands.

As the afternoon miles slipped behind her she began to look ahead for the rail-way crossing that she knew was but two-miles from the city. A station near by received comers and goers to and from a private dispensary. She should recognize the great building when approaching it.

But, poor girl, she did not. "The best laid schemes of mice and men gang aft aglee." Some strollers on the broad grounds at that hour saw a maddened team running at frightful speed from the

crossing, tearing along the highway past a sudden bend in the road where the driver of a vehicle had neither time, nor space—had there been time—to turn off to a safe distance.

So, Gyp did all there was to be done—jumped aside without ceremony, and saved his load from a greater crash by overturning it.

When the hurrying strollers arrived at the scene they found Gyp panting and trembling, his shafts broken and traces dangling, while Rex was whining and pulling at the gown of some one almost buried under cushions, boxes and flowers. Was she killed, they queried, or only unconscious, as with skillful alertness they removed the limp form from its surroundings.

When Dora opened her eyes in a dimly lighted room, at 2 o'clock next morning; they rested on a pleasant, girlish face, with short, wavy, black hair. Their eyes met.

"Where am I?" inquired Dora.

The young nurse approached her smilingly, and while cooling the cloths on her head, answered:

"You are in Dr. Steele's dispensary—the best possible place for you. He's been here with you for hours. He says you must not talk, even if you can."

"I remember the runaway team now; what did it do to us, to Gypsey, my pony, I mean—and to Rex, poor fellow?"

"I'll answer these questions, and then if you talk any more I shall leave, and send the doctor to stay with you. Your head was hurt just enough to stun you into unconsciousness—that's all, nothing else wrong. Your horse is all right and nicely stabled. Your dog is lying against your door, outside, simply because nobody could keep him out of the house without killing him. Now he is satisfied, so you must be, for all's well and all in good hands, even to your flowers that are brightening a dozen sick rooms this minute. Now, take these drops, then some of this nourishment, and go to sleep, if possible."

"Everybody's so good," smiled Dora, and her heart went out to her young nurse from that moment, Closing her eyes, she thought to herself:

"What a comfort to know that while I lie here, aunt Woodburn will think me

still at home-home-folks will think me with her; nothing amiss will be suspected, except that a letter from me has been delayed. Nobody here shall get my name to report. There, now all's settled, and I must stop thinking, for my head throbs fearfully. I ought to sleep. How nice to have a 'trained nurse,' so different from others, voice so gentle, touch like velvet, footsteps noiseless, knows exactly what to do and how to do it, can be called on freely for service, because that's her business. Such a comfort, yes, trained nurses-are-are. Get up, Gyp, we're almost there now." The sick girl had sunk into a sleep that was no longer a stupor, but broken by feverish mutterings connected with her journey.

The late morning, however, found her better — sleeping quietly and without fever. The doctor thought that with care there'd be no more trouble. As she seemed inclined to talk, he inquired her parents' address. "That's just what I do not wish you to know," she said, "they must not learn my condition. When you think I am able to be driven to the city I'll tell you who I am and where I'm going, and you shall keep Gyp as hostage, if you will, until my father can see you."

"Tut, tut," said the sensitive doctor, "for what do you take me?"

"And for what would you take me," she retorted, "were I to ignore all obligation after such lovely care and treatment?"

"Well, since you haven't ignored it, you ought to feel content now, and keep very quiet the rest of the day, lest fever be induced."

But she was nervously restless, requiring, in her pleasant way, many little services not essential to recovery, calling her nurse Angelica. When at night all was made ready for her slumbers, she could not resist saying, "Such a comfort it is to have a nurse who is not taxed with other work and worries."

"But I am to lie on a lounge in the next room to-night," said Angelica, "with a nervous patient who needs me. I shall look in here often, and here's a bell you are to ring if you want me."

"And so you'll have two of us on your mind to-night. Well, I hope that habit makes it easy for you. Good night Angelica."

"Good night, Miss Nameless," responded the nurse.

For two more days she waited on Dora, brought up her meals, fed the dog, trotted to the stable to call on Gyp and report, and was requested to read aloud, but declined on the plea that her eyes were undergoing treatment.

Finally, she had a caller from the city, whom she introduced to Dora as Miss Woodburn, her dearest friend. There was one instant of amazed silence, and then:

" Cousin Dora! exclaimed the caller, "You here?"

"Marguerite!" cried the other, "I didn't want you to find me here, (but her clasping arms belied her words). How did you and my nurse, Angelica, become acquainted?"

"Your nurse? Angelica? Why, Dora, child, this is my precious old College friend, of whom you've often heard

me speak. Learning she was here for eye treatment, of course, I came to see her—have been here before."

Dora, recalling all she had heard of her cousin's wealthy and charming friend, covered her face in confusion, exclaiming:

"Why, Marguerite, I thought your friend was in Europe still, and that this person was a hired nurse, a trained one, so superior, you know, and have ordered her around from morning till night—kept her doing the most trifling things. I shall die with mortification; I cannot bear it.

She could say no more, for Miss Sterling uncovered her face, and kissing her, said: "You were very nice and sweet to me, dear, and I was glad to be of use in a way that did not tax my eyes. Idleness is very wearisome. If you liked me as nurse. I shall now hope you may like me for other reasons as well.

MARIA BARRETT BUTLER.

# HOW JOE SAVED THE TRAIN.

The night fell wild and stormy round the house where little Joe Sat and watched the changing pictures in the wood-fire's ruddy glow; Now he saw the lakes and mountains of the Italy of dreams, And he seemed to hear the music of, in the wind, of falling streams; Then the lakes became an ocean and the tempest hid the sky, And he heard the roar of waters in the storm-wind rushing by; Then it was the tramp of armies in the wind among the pines, And he saw long ranks of soldiers marching by in steady lines, As the artist of the embers, by his wond'rous magic, caught Pictures with the brush of fancy fitting every changing thought.

Near him sat his widowed mother with her knitting in her hand,
Thinking, doubtless, as she listened to the storm that swept the land,
Of the boy who was a fireman on the train that passed at ten
By the little cabin nestled 'neath the pine trees in the glen.
Always from that cabin window gleamed the light of home for him.
"He will see it" thought the mother, "It will say, they think of Jim,"
And this thought of home and dear ones would make glad his heart, she knew,
As he read the beacon's message from the hearts so warm and true.

"I'm getting sleepy, mother, and I think I'll go to bed, For there's work to do to-morrow, bright and early," Joey said. Then he climbed the ladder leading to the loft in which he slept, While the mother till the passing of the train her vigil kept.

Joe was dropping off to slumber when he heard, above the roar Of the wind, a sudden knocking at the little cabin door.

"Some one must be seeking shelter from the stormy night," he thought.
Then he heard the door flung open, and he knew flom words he caught,
That two strangers were demanding of his mother food and drink.

"Give us something warm, good woman, and be quick about it, too, We can't wait a great while for it, for ten o'clock, I think, There'll be something pretty lively for my chum an' I to do. So be spry about it, woman, for your clock says nine, I see, And we haven't time to visit, though we've asked ourselves to tea.

Then the boy who lay and listened, heard his mother shut the door Between them and the kitchen. Then the listening lad heard more, For the two men talked together of a plan to wreck the train That was rushing on to danger through the darkness and the rain,

"And it's Jimmie's train," like lightning flashed the thought through Joey's brain,

"I must save him, I must save him, I must save him and the train."

Out of bed he clambered lightly, and he dressed himself with haste, Thinking only, "I must save him—not a moment dare I waste." Then out through the little window of the cabin-loft he crept To the low roof of the kitchen, and so noiselessly he stepped That his mother did not hear him on the shingles overhead. "Joe is fast asleep," her thought was. Ah, how wide awake, instead!

Suddenly a sound, a tapping, as of something at the pane Caught her ear beneath the beating and the plashing of the rain. Then she heard one low word, "Mother." "Who was it that called her name From the night and storm and darkness? Quick she turned to whence it came, In a way that seemed to warn her she must make no word or sign.

"Did I hear a voice say Mother? No; it must be dream of mine."

"Mother," came again the whisper. "Don't be frightened; it is Joe. Come outside the door a moment." There he told, in whispers low, What he heard the two men saying. "They don't know that I was there. Hand me out the lantern, Mother, for there's little time to spare. If I go across the cornfield and the pasture and the hill I can head the train off, Mother. O, I can, I must, I will! And the men who're waiting for it round the curve will wait in vain, For I know that God will help me save dear Jimmie and his train."

"O, my boy, let me go with you," cried the Mother, pale with fear.
"No, you must not," was his answer. "Don't you see your work is here?
You must get the men their supper. If you were to go with me
It would rouse the men's suspicions. It might spoil my plan, you see.
Hurry, Mother, light the lantern; long ago the clock struck nine,

I must be there in a half hour and put out the danger-sign."

With hands that shook like aspen leaves, she brought the light to him. "O, God, please go with little Joe, and help him save dear Jim," She prayed, and kissed the brave boy's face. Then down the road he ran, This hero, but a boy in years, but in his heart a man!

With lantern hid beneath his coat he climbed the rocky hill; The fierce wind tried to beat him back, but with a sturdy will He made his way o'er fallen trees, through tangled brush and vine, Not daring, till the top was reached, to let his light outshine. At last the longed-for height was gained, and down the farther side He sprang with eager feet beneath the pine trees spreading wide. And soon he stood upon the track, unheeding wind and rain, Waiting, with wildly beating heart, the coming of the train.

It seemed to him he waited hours and hours before He heard the sound he listened for above the wind's fierce roar. Then a mile away the headlight shone faintly through the gloom, And the train came dashing onward toward an awful doom.

He swung his lantern up and down, he swung it left and right.

The gleam of his danger signal flashed out across the night,
And caught the eye of the engineer, as he glanced adown the track.

"Something's the matter," he shouted, and forced the lever back.

A quick sharp cry of danger from the whistle's throat rang shrill.

A quick, sharp cry of danger from the whistle's throat rang shrill, And the brakes shut down their mighty grip on the wheels till they stood still.

"Thank God, thank God," cried little Joe, as he still his lantern waved Above his head, to left to right, "the train, the train is saved.

Jimmie, O, brother Jimmie, are you there? It's little Joe,
Who came to warn you of danger and save the train, you know."

There was sudden and wild commotion when the brave boy told his tale; Men looked in each others faces and the strongest of them grew pale. They shuddered to think how near to death they had been a moment ago, And women came with their kisses and their tears to little Joe, And all of them said, "He's a brave lad—there's noble stuff in him," And proud enough of his brother, as well might be, was Jim.

There was joy in the little cabin, too deep for words to tell, When Jim came home with little Joe, and said that all was well. The humble home ran over with thankful-hearted men, And the story of Joe's brave deed was told again and, yet, again. And one whose hair was silver stood up in reverent way, And with one hand on Joe's bright head, said gently, "Let us pray." And a prayer of thanks rose heavenward for the mercies of the night, And many an eye unused to tears shone with a tearful light, As the old man added, softly, "God bless this lad," and then From every voice and every heart went up a great "Amen."

EBEN E. REXFORD

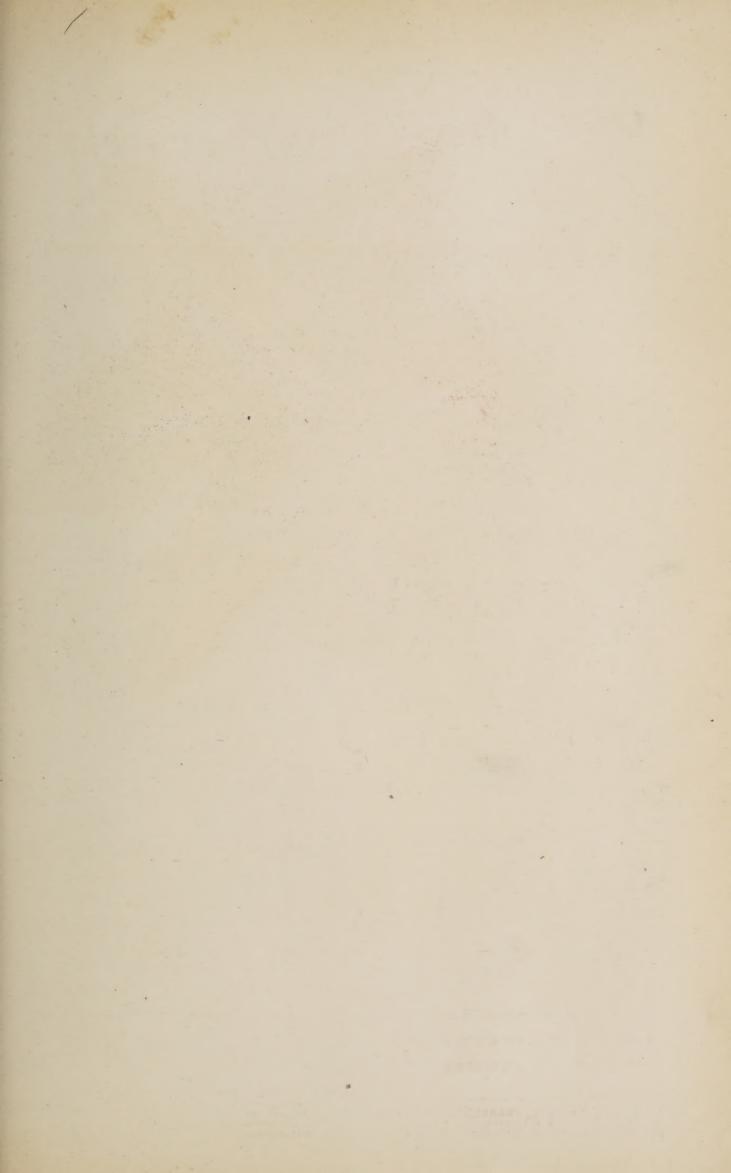
## OBITUARY.

#### PATRICK BARRY.

By the death of this well known nurseryman, American horticulture loses its most illustrious standard bearer. His death occurred in this city, on the morning of the 23d of June last, at the age of 74 years. So closely has he been identified with horticultural work and interests that an account of the last fifty years of his life would consist, in great part, of the history of horticulture in this country during the same period of time. He was born in Belfast, Ireland, in 1816; received a liberal education, and for two years was a teacher in the Irish National Schools. At the age of twenty he came to New York to become a resident of this country. Soon after his arrival he engaged with the Messrs. Prince, of the Linnæan Nurseries, Flushing, N. Y., serving in the capacity of clerk. For four years he there gave himself with earnestness to the aquisition of a knowledge of the practical art, as well as the theory of horticulture. He carried the industrious student into this pursuit, and to the receptivity of a pupil he added the determination and zeal of an original investigator. Thus he acquired the information and the enthusiasm which fixed his course in life as a horticulturist. Knowing the capabilities of Western New York as a fruit region, he came to Rochester in 1840, and formed a partnership with George Ellwanger, to conduct the nursery business. Under the name of Mount Hope Nurseries this establishment has acquired a world-wide reputation as a model of its kind in the great variety of its productions, and the business-like manner in which it is conducted. Mr. BARRY's love of plants was general, and he could appreciate the lowliest herb with all the interest of a naturalist, still his greatest admiration was excited by handsome trees. At Flushing he had acquired a considerable knowledge of fruits, and in this line as a pomologist he developed most rapidly after engaging in business for himself, and soon became a recognized authority in regard to fruit culture. About 1845, or soou after, Mr. Barry became horticultural editor of the Genesee Farmer, and soon made a reputation for himself as an able writer on horticultural subjects, and especially on the culture of fruits. He continued in in this capacity until 1852, in the meanwhile the nursery business was rapidly increasing under the management of himself and partner. After the death of A. J. DOWNING, editor of the Horticulturist, in 1852, that publication was purchased by JAMES VICK, and its issue commenced here the following year, and Mr. Barry assumed the editorship, which position he filled with the greatest ability until 1855. At this time, as Secretary of the American Pomological Society, he commenced the work of preparing the Catalogue of that Society, a work involving a large correspondence and exacting much time; by his efforts it was given its present form, and its great value only fruit-growers can understand. For many years he served in this capacity. This Catalogue, uhique of its kind, has had the effect to direct intelligently the efforts of fruit-growers in every State of the Union. In 1852 Mr. BARRY gave to the publishers The Fruit Garden, a work of most practical value, and which has had an immense sale, and passed through several editions. All of his writings are forceful and vigorous and full of thought, showing him to be a master of his subjects. He was an untiring worker. Mr. BARRY's rare business ability and activity found scope for their exercise in connection with numerous branches of business besides his chosen one, and in all these he gained the highest respect and esteem of his associates, and comparatively early in life was in possession of an income which has always been worthily used. For thirty years he has been the President, the presiding genius, of the Western New York Horticultural Society. In this capacity he has annually met for counsel, instruction and encouragement the principal fruit-growers of this and other States, and has freely given the benefits of his experience to the public, it apparently being his greatest pleasure to stimulate and develop the fruit industry. Of the many other positions of honor and trust which he has held we have not space to record. He was a man of an agreeable nature who warmly attached his friends to him. He was always ready to counsel and advise with those who sought help in horticultural matters, and his example, his teachings and his efforts have done more than those of any other person to promote the cultivation of fruits in the private gardens of this country, and to establish fruit culture as a branch of industry. The writer, who had known him intimately for many years, experienced an inexpressible sense of loss and sadness when his death was announced, and this we believe to be the feeling of all horticuiturists and fruit-growers who have been under his influence.

#### B. S. WILLIAMS.

This name is familiar to many of our readers through press contributions and several published volumes. Mr, Williams, an English gardener, became famous, especially as a grower and exhibitor of orchids, and as a writer on this class of plants, His writings first appeared as magazine articles, and afterward in the shape of a volume, called the Orchid Manual. He was also the author of Choice Stove and Greenhouse Plants, and Select Ferns and Lycopods, and other works. His death at the age of sixty-six years, occurred on the 24th of June last, in London, England.





AMARYLLIS JOHNSONI.

SEEDSMAN.